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ABSTRACT

The focus of this study was teacher assessment of several factors relating to selected materials provided by the American Iron and Steel Institute. The design and rationale, instrumentation, methodology, and questionnaire mailing are discussed in Chapter I. Chapter II reviews the related literature, including the historic nature of free and inexpensive materials and the current use of free and inexpensive materials. The study analyzes the mail returns, the receipt of materials, their level of use, reason for requesting, their use after receipt, intention to reuse, reasons for not using, assessment of their effectiveness, importance of content, respondent's attitude toward industry sponsored materials, time reported as being spent in teaching with AISI materials, and user comments. The problems, related literature, methodology are summarized. The findings revealed a positive attitude toward and acceptance of these materials. A bibliography is followed by three lengthy appendixes which contain covering letters and questionnaire, a summary of the comments, and additional tables of supporting data. A related document is ED 072 992. (KSM)

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A STUDY OF TEACHER OPINIONS AND EVALUATIONS CONCERNING SELECTED FREE PRINTED MATERIALS PROVIDED BY THE AMERICAN IRON AND STEEL INSTITUTE TO INDIVIDUALS THROUGHOUT THE UNITED STATES

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In addition, he is especially grateful to have been associated with Dr. Gerald Dudley, for the second successive year, in jointly teaching the course in which this study was completed.

The researcher is deeply appreciative of the financial grant from The American Iron and Steel Institute (Indiana University Account Number 40-653-01) which made this study possible.

Particular thanks are extended Dr. Bertis Capehart, Education Director of The Institute, for his help, cooperation, and encouragement.

C. R. D.

DEDICATION

The research team hereby dedicates this study to Michael Daniel Sumpter, who was born during the course of this study. It is hoped that his generation will profit from the knowledge gained of the value of industry sponsored materials. It is further hoped that those dedicated individuals who teach him will utilize the total community in this effort.

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CHAPTER I

STATEMENT OF THE PROBLEM AND DESIGN OF THE STUDY

For the past twenty or more years, dating to the post-World War II period, there has been a great quantity of free and inexpensive materials available to teachers for use with their students. This was emphasized in a speech delivered by Cora A. Mowrey, Director of the Division of Organization Relations of the National Education Association, on Marcl 1, 1966. In it she called attention to the greatly accelerated production of these materials in recent years.)Mowrey, unpublished paper).*

Evidence of the amount and kinds of free materials available was obtained by examining several supplementary materials directories, some of which are revised annually. Examples of these directories were Educators Guide to Free Materials (a series of guides listing free pamphlets, film strips, bulletins, movies, and tape recordings; Suttles, series); Free and Inexpensive Learning Materials (Peabody College series); and Educational Media Index (McGraw-Hill series).

Further, articles and monthly columns appear in trade papers and journals informing teachers of the availability of the most recent free and inexpensive materials. In addition

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*Names and citations in parentheses refer to the bibliography; numbers after the colon are page numbers.

to these columns there are series of pamphlets which inform teachers of materials that could be ordered and used.

Finally, the producers of these free materials are interested in how their materials are used by teachers. This study, sponsored by The American Iron and Steel Institute, Washington, D.C., is evidence of at least one producer's interest in determining the strengths and weaknesses of the materials being sent to teachers throughout the United States. It almost goes without saying that these materials therefore are being utilized in the classrooms and therefore have a direct impact upon the instructional programs of the schools.

THE PROBLEM

Underlying assumptions. For purposes of this study it was assumed that the following assumptions were true:

1. That teachers did use free printed materials (pamphlets) as a means of supplementing the textbook as an instructional tool.

2. That these teachers, when they received these printed materials from the producer, used them with their classes and made a subjective judgment of the value of the materials.

3. That these users would communicate their assessments (judgments) of these materials to the producer, and that a mailed questionnaire was the most expeditious manner in which these data could be gathered.

Specific problems. The specific problems of this study were to study teacher assessment of the following factors relating to selected materials provided them by The American Iron and Steel Institute.

These problems were:

1. An anlayis of teacher opinion concerning how these materials fit into their instructional program.

2. An assessment of the level at which the material could be used effectively.

3. An attempt to determine the recipient's reason for requesting the piece of material.

4. An assessment of the use madeof the material by the recipient.

5. An assessment of the instructional effectiveness of this material when contrasted with other pieces (not determined) available to the teacher.

6. The effectiveness of the materials content in the instructional program.

7. The teacher's opinion of the effect upon students of the fact that the material was industry sponsored.

8. A compilation of user comments, based upon the above items, classified by individual piece of material.

Importance of the study. A thorough search of the literature and reports of research had not revealed that teacher judgment of the materials entitled The Story of Environment and Industry, Mark Steel Fights Pollution, and

Steel Science and Our Society (all provided at no cost by The American Iron and Steel Institute) had been tested or reported in periodical literature. The factors which may had influenced teacher judgment of these materials, or similar materials had not been tested either. This study was intended, therefore, to add to the body of knowledge concerned with teacher assessmant of free and inexpensive materials, and to identify factors which may have had as effect upon their subjective judgments.

DEFINITIONS OF TERMS USED

Several terms employed in the description of this study, which may have specific implications, were defined as follows:

> Catharsis. . . the process of bringing repressed ideas into consciousness and thereby dealing with them; more broadly, an expressive reaction . . . believed to have some psychotherapeutic effect. (Good: 77)
>
> Closed Form Questions. Responses are made to a set of provided answers. The information that is desired may be more easily counted, tabulated, and analyzed. (Best:44)
>
> Free and Inexpensive Materials. Materials available at no cost to the teacher, or at a cost that only included postage. (DuVall:4)
>
> Non-respondent Any recipient of a questionnaire who does not reply. (DuVall:4)
>
> Open Form Question. Used for intensive studies or exploration of novel problems. Each answer is a written description and much room is usually available for free response. (Best:144-45)
>
> Questionnaire. A list of planned, written questions related to a particular topic, with space provided for

indicating the response to each question, intended for submission to a number of persons for reply, commonly used in survey studies and in the measure of attitudes and opinions. (Good:435)

Respondent. Any recipient of a questionnaire who actually replies to the questionnaire. (Good:466)

LIMITATIONS OF THE STUDY

One limiting factor which must be considered in any study using the questionnaire as the basic means of data collection, particularly that utilizing the mailed form of instrumentation, is that of nonresponse, or failure to obtain information from the respondents. According to Kish this nonresponse may fall into a number of categories, any one of which might describe the nonrespondent. Included in these categories are: Temporarily unavailable; Refusals; Incapacity or inability; Not found; and Lost schedules.

Another limitation was the nature of the population, i.e. all persons requesting free printed materials from The American Iron and Steel Institute, and within a specified period of time. Because of the possible psychological makeup of the teacher requesting materials (must write and request same, e.g. more highly motivated), the results could be skewed. However, no other method to assess the value of such materials could be devised which would yield similar results.

DESIGN AND RATIONALE

To obtain the desired information a questionnaire was developed, as was an accompanying cover letter which included an explanation of the study (see Appendix A). These basic instruments were adapted and modified from a similar study conducted previously for The American Iron and Steel Institute entitled A Study of Teacher Opinions Concerning Selected Free Filmstrips Provided by The American Iron and Steel Institute to Schools Throughout the United States (DuVall et al.).

According to established patterns found in research, certain information, details, and form were included in the design of the cover letter. Such included items were as follows: the purpose of the study, the importance of the study to the respondent, the value of the respondents reply, and the sugnature and the titleof the educator involved in this particular study. (Borg:214-15) The cover letter did not mention any confidential treatment of the data. A summary of the findings was promised. (Young:205) General attractiveness was stressed. Bold pica type printing was used on good quality white bond paper bearing the official letterhead of Indiana University at South Bend (Young:203)

According to Good and Scates, questionnaires constitute a major, reliable survey instrument for data gathering in various survey studies. (606) The mailed questionnaire was used because personal contact was impossible in most

instances and unnecessary in this study. Acknowledging that the mailed questionnaire technique possessed several disadvantages such as address problems due to possible widespread mobility (Snelling:127) and the possibility of some replies being incomplete or not returned, this technique was still employed in gathering the data for this study due to its proved general effectiveness and its relatively low cost. (Droege:256)

Concerning the beginning statements (questions 1-5, demographic data, grade level , age, and sex) this information was requested for possible relationships between demographic data and materials utilization of teachers and their opinions concerning the materials.

In the ordering of questions items were placed in a funnel structure, a psychologically and logically sound sequence, with simple, interesting, and neutral questions preceeding the more difficult, crucial, and personal ones. (VanDalen:257)

This idea is succinctly presented by Levine and Gordon who stated:

> The position of the question in relation to other questions frequently affects the responses. It is best to keep the first few questions simple and easy to answer, though not trivial. Respondents tend to be discouraged when they have to answer difficult or relatively personal questions in the initial part of the questionnaire. . . . (Levine and Gordon:572)

Questions were kept short because brevity was stressed in the research dealing with instrument development. The

question length did not usually exceed 20 words, with every word being familiar and concise, thus involving a minimum of the respondents time. (Oppenheim:56)

Both closed and open form questions were developed and employed in this instrument. The closed form type question, requiring checked responses, was used to secure categorized data. Open form questions were used in order to provide a more concise picture of the respondents feelings relating to the pamphlets under study. (VanDalen:256)

Because of the fact that in many cases open form questions produce responses that are at best difficult, and in some instances impossible, to calculate, all responses to such questions are reproduced in Appendix B. The reader is urgedto peruse these responses in some detail and draw his own conclusions, within the context of the limitations previously noted. Despite its limitations and the difficulty in analyzing these replies this type of question tends to avoid superficial replies and allows the respondent to structure his own answers. (Sax:112)

When wording questions the following ideas were taken into account: Using simple words; Making the questions concise; Formulating questions to yield exact information; Avoiding ambuguous questions; Avoiding the use of "danger words" connoting emotionalism, stereotyping, etc.; Making allowance for a range of possible responses; and Desigining realistic multiple-choice alternatives. (Parten:200-01)

Some questions were asked, not only for information but also to prepare the respondent for the subject area, because of their general nature, and because these types of questions are expected in any questionnaire. Other questions were included for the purpose of catharsis (the open-ended type particularly), and to allow the respondent to state any further comments or ideas. (Good and Scates:619)

Oppenheim observed that:

> One classification . . . are a special type of factual question that ask about sex, age, . . . education, . . . and so on. These are of special importance in stratifying the sample and tend to recur from survey to survey; for both these reasons they are worth special attention. (Oppenheim:57)

INSTRUMENTATION

Heading the list of numbered questions were two (1 and 2) intended to determine some indication of socio-economic status, admittedly of a very general nature. The answers elicited from these questions served as tools for the interpretation of the responses which followed. Questions 3 and 4 dealt with matters more directly related to teachers and teaching. (Sax 218)

Age is a simple term which is often misunderstood because opinions vary as to when and for how long a parson is a particular age. This question can be clarified by asking age to the nearest birthday, date of birth, or age range. (Best:150) Since there was no need to know the respondents exact age the question (number 4) was structured to determine only age ranges.

Questions 7 through 15 pertained to themain concerns of the study - applicability to instructional program, assessment of accuracy of information contained in the material, effectiveness of content, comparison with other materials, and comments concerning the materials.

Provision was also made for the user to indicate the grade levels(broad indicators) at which the piece of material was utilized. In addition provision was made to provide a summary of the study, if requested by the respondent.

METHODOLOGY

Identification of the materials and the population. The Education Director (Dr. Bertis Capehart), The American Iron and Steel Institute, Washington, D.C. identified the three pieces of material to be analyzed in this study. These were:

The Story of Environment and Industry

Mark Steel Fights Pollution

Steel Science and Our Society

The Director provided the research team with the mailing labels utilized by The Iron and Steel Institute for the previous 18 months, in the case of two pieces of material ("Mark Steel" and "Steel Science"). The labels for "Environment and Industry" were those utilized from a blanket mailing to teachers throughout the United States. All labels were teachers who were members of this national association.

Separate lists were compiled for each of the three pieces of material.

Four hunderd names were randomly selected for each piece of material. A total of 1,200 names were thus selected. Sampling without replacement was attempted, but no attempt was made to insure this. It is known that there were five duplications, however the proportion of such duplications is deemed not to be statistically significant and has no bearing upon the results of this study.

Mailing the questionnaire. A total of 1,200 questionnaires was mailed (400 for each piece of material). Included in each envelope was the piece of material under study. Because of the weight of the package third calss mail was utilized. This greatly delayed the return of undelivered mail, and is a method that well might be reexamined in any future studies of this type. Each questionnaire was identified regarding the title of the pamphlet (rubber stamp), a cover letter and a self-addressed postage paid return envelope were included. Materials were miled to each randomly selected recipient of the materials on January 29, 1972.

Follow-up technique. A follow-up letter was mailed on March 1, 1972. This was accomplished in order to have a sufficiently high percentage of usable returns.

This mailing procedure was adapted from the technique

suggested by Kephart and Bressler (Kephart and Bressler: 123-32) and utilized in the study accomplished for The American Iron and Steel Institute the previous year. (DuVall:10-11 and 19-22)

ORGANIZATION OF THE REMAINDER OF THE STUDY

This study has in Chapter II a briev review of selected pertinent literature and related research. Chapter III is the presentation and analysis of the data. The summary, conclusions, and recommendations of this study are reported in Chapter IV.

CHAPTER II

REVIEW OF THE LITERATURE

The literature dealt with in this study was concerned with the nture, status, and use of free and inexpensive materials in the schools of our country.

Historic nature of free and inexpensive materials. The nature of free and inexpensive materials as teaching tools, as viewed by published experts in the field, has changed over the last half century. Burk illustrated this when he compared the titles of several studies completed during that period of time. In 1932 Columbia University published a pamphlet entitled Propaganda and Education. Seven years later, when Addicott submitted his doctoral study it was entitled A Study of the Nature and Elementary School Use of Free Printed Matter Prepared as Advertising Media. By 1952, when Netzer's dissertation was published by the Wisconsin Manufacturer's Association, the terminology had changed to The Use of Industry Aids in School. In the course of twenty years the terminology had progressed from "propaganda" to "free printed matter prepared as advertising matter" to "industry aids." In a study completed last year, the first in the series sponsored by the American Iron and Steel Institute, the researchers merely called them "free filmstrips."

At about the same time that Netzer's dissertation was published the National Science Teachers Association of the

National Education Association published a report that referred to "business sponsored teaching aids." (Advisory Council: pamphlet) Approximately ten years ago the National Council for the Social Studies issued a committee report entitled Sponsored Resources for the Social Studies. (Joint Committee: PAMPHLET) Just eight years ago the United States Atomic Energy Commission issued a mimeographed report dealing with the use of their "educational materials." (United States: report) Several years later Mowrey delivered her previously referenced address in which she referred to the "instructional materials ((published) by industry." (Mowrey:unpublished paper) The reader can thus see the change that has taken place in the terminology, if not the materials themselves.

In addition to this change in terminology there has also been an increase in the numbers and types of such materials that are available. Sinclair attributed this increase to the influence of the armed forces training methods and the training materials used during World War II. (Sinclair:8) Many of the devices used by the armed forces were of the "comic-book or simplified graphic" type.

Use of free and inexpensive materials today. Prospective and experienced teachers have received advice on the acquisition and use of free and inexpensive materials in their classrooms. Trainers of teachers use these materials as an integral part of their "methods" courses and textbooks.

Michaelis dealt with standards for the selection and use of free social studies materials in some detail in his text. In addition he presented a selected bibliography of published guides that might help the teacher acquire such materials. He also provided a checklist for teachers to use in the evaluation of these materials. This checklist dealt with (1) the purposes for the acquisition or utilization of these materials, (2) the readiness of the class for their use, (3) suggested procedures to be followed during use, (4) follow-through procedures, and (5) teacher evaluation techniques. (Michaelis:301-08)

The status of free and inexpensive materials in the social studies was explained in a report published by the Joint Committee on Cooperation of Business and Industry of the NCSS. They stated:

> Sponsored instructional materials and services can add substantially to the variety, timeliness, and depth of . . . teaching. They can motivate, interest, serve as a reservoir of information, present points of view forcefully and meaningfully, and extend the range of direct experience. . . .
>
> As a supplement to the textbook and other commercially produced learning materials, sponsored resources have certain advantages. They can be more up-to-date . . . and dramatize their subjects effectively. (Joint Committee:2)

Jarolimek stated that free and inexpensive materials have become a valuable resource for the teacher. He also noted that the firms which produce these materials have realized that if the materials were to meet the needs of the

classroom teacher the advertising aspects of these materials would have to be kept to a minimum, and the factual materials (curricular content) kept objective and honest. (Jarolimek: 103-04)

Wagner presented a list of nine criteria to be used in the evaluation of these materials. (Wagner:22-23)

Fay, Horn, and McCullough, in their pamphlet entitled Improving Reading in the Elementary Social Studies, stated that teachers should take advantage of the many free and inexpensive materials available from industrial organizations, trade associations, governmental agencies, and others. They also mentioned the fact that many state and national professional journals periodically review these types of curricular materials. (Fay:10-11)

Another trend is the establishment of Community Resources Workshops throughout the country to teach teachers to use the "total community" in their teaching efforts. These efforts obviously included the use of free materials. Ayars noted that The American Iron and Steel Institute was a pioneer in this effort. His study assessing the attitudes of teachers following their participation in these workshops revealed that:

1. Attitudes between pupils and teachers improved.
2. Greater interest and achievement was shown by pupils.
3. There were more positive school-community relations.
4. Teachers methods and participation improved. (Ayars:unpublished dissertation)

Not all authors viewed the plethora of free and inexpensive materials as an unmitigated blessing. Cooney, writing in the Saturday Review, summarized his views of the problems as follows:

> . . . the mixed blessing being conferred on the American school by the education and public relations departments of business and industry, trade organizations, and labor unions in the form of "free and inexpensive teaching materials."
>
> . . . Aside from the physical problems of where to put the stuff as it pours in, the educator's main task has become to separate the educationally useful from the irrelevant. (Cooney:33-34)

The American Association of School Administrators, in their booklet Choosing Free Materials for Use in the Schools, cited the potential market represented by the captive audience of over thirty million children, and the obviously poor quality of some of the materials as factors which should be recognized in using these "handouts." They recommended that a school policy be established in order that the individual teacher might have proper guidelines in the selection of free materials. (American:3-5 and 11-15)

In two studies (1965, replicated 1970) involving all cities in the United States of 100,000 or more population, it was determined that over 90 per cent of the school districts did permit the use of free and inexpensive materials in their programs, and that less than 3 per cent specifically prohibited their use. The principal, curriculum coordinator, and the individual teacher shared in the responsibility for determining

the acceptability of these materials. (DuVall:21-33)

Teacher use of free and inexpensive materials. The published research revealed that there has been a marked trend on the part of teachers to use more free and inexpensive materials in their teaching.

Addicott found in 1939 that over 85 per cent of the 500 elementary teachers and administrators he surveyed had been using "advertising" materials, while only 10 per cent had not. (Addicott:38-39)

Netzer surveyed Wisconsin elementary teachers ten years later and found that 97 per cent were using industry-sponsored materials during the school years 1948-49 and 1949-50. These teachers reported that the quantity of industry sponsored materials that they used depended to a great extent upon whether these materials met the standards of good supplementary instructional aids. (Netzer:145)

Burk, in his unpublished research paper, reported that over 97 per cent of the teachers interviewed in Jackson County, Michigan, reported using free materials in some form. Burk's findings, with regard to the per cent of utilization, agreed almost exactly with those reported by Netzer four years earlier. (Burk:unpublished paper)

Another indication of the extensive use of free and inexpensive materials is the assumption on the part of contributors to professional journals that these materials are almost universally used and accepted.

Wagner, writing in the official publication of the Iowa State Education Association, stated "it should be recognized that vertical file materials, like many of the best things in life, are free or at least easily accessible." (Wagner: 23-25)

Grant, in the Texas Outlook, official publication of the Texas Education Association, observed:

> The teacher of . . . social studies is often bewildered as to where to begin looking for free materials and samples for her class. Here is a summary of places and addresses from which you may obtain free materials that will be a source of delight and enjoyment to your students. (Grant:13)

SUMMARY

A review of the pertinent educational research revealed that free and inexpensive materials are used today to a much greater extent than in the past. The use of these materials by teachers is encouraged by the recognized experts in the field of social studies education, as well as other disciplines. There are, however, certain inherent limitations imposed upon their use by the very fact that they are free or inexpensive. Studies conducted within the last twenty-five years showed that over 90 per cent of the classroom teachers surveyed had been using some type of sponsored materials. Studies of school policies and administrative procedures reveal that the use of these materials is permitted if no encouraged.

CHAPTER III

FINDINGS OF THE STUDY

This chapter presents an analysis of the data relating to the three pieces of printed material under study. These three pieces of material are:

The Story of Environment and Industry

Mark Steel Fights Pollution

Steel Science and Our Society

All of these materials were produced and distributed by The American Iron and Steel Institute, Washington, D.C.

An examination of the total mail returns will be made and then responses will be examined by individual item on the questionnaire (see Appendix A) together with and examination of selected comments (see Appendix B).

Mail returns. A total of 1200 questionnaires were mailed. Of this total 122 were returned as undeliverable, which meant that 90 per cent were delivered to the sample. Of the total assumed to be delivered an overall response of 75 per cent were returned to the researchers. Because of the relatively high rate of response, generalizations were drawn concerning the materials and teachers opinions concerning these materials. A complete breakdown of the mail return response data are presented in Table 1.

Of particular note are the data dealing with the

mailing of the material entitled The Story of Environment and Industry. Two factors are of particular note: (1) the rate of return was much higher for this piece of material (78/122); and (2) a much higher per cent of response was received from those teachers who received this piece of material. This is the particular mailing in which the Institute made these materials available to the total membership of a national organization of teachers. Two tentative generalization might be advanced here concerning this particular mailing: (1) the mailing list might be in need of "updating"; and (2) those teachers who did receive that particular piece of material tended to respond in a far higher ratio than did the recipients of the other pieces of material.

TABLE 1. ANALYSIS OF MAIL RETURNS BY PIECE OF MATERIAL

Material	f	Return	Net	Received	% Resp.
"Environment"	400	78	322	294	91
"Mark Steel"	400	20	380	288	76
"Steel Science"	400	24	376	231	61
Total	1200	122	1078	813	75

Table 2 presents the same data broken down by ZIP Code Number (geographic area)). The midwest (ZIP 4) and the New York-Pennsylvania area (ZIP 1) had the highest per cent of returns while the southwest and far west (ZIPS 7, 8, and 9)

TABLE 2. ANALYSIS OF MAIL RETURNS BY AREA OF THE UNITED STATES (CLASSIFIED BY FIRST DIGIT OF ZIP CODE NUMBER)

ZIP#	States	f	% Resp.
0	Conn., Mass., Maine, N.H., Puerto Rico, Vermont, R.I., Virgin Is., N. J.	95	12
1	Delaware, New York, Pennsylvania	138	17
2	D.C., Md., Va., N.C., S.C., W. Va.	64	8
3	Alabama, Fla., Georgia, Miss., Tenn.	50	6
4	Indiana, Kentucky, Ohio, Michigan	136	17
5	Iowa, Minn., Montana, N.D., S.D., Wis.	75	9
6	Illinois, Missouri, Nebraska, Kansas	95	12
7	Arkansas, Louisiana, Oklahoma, Texas	61	7
8	Arizona, Colo., N.M., Utah, Wyoming, Idaho, Nevada	39	5
9	Alaska, Hawaii, Cal., Oregon, Wash.	60	7
	Total - United States	813	100

had, as an area, the lowest per cent of responses. Examination of the data in Table 2 did not lead to any particular pattern of responses being noted. These data are also illustrated in Figure 1.

In addition to the examination of the data by piece of material and the geographic area from which responses were received (ZIP Code), the following demographic factors were chosen and the data were broken down and analyzed utilizing these selected factors: academic training, type (size) of

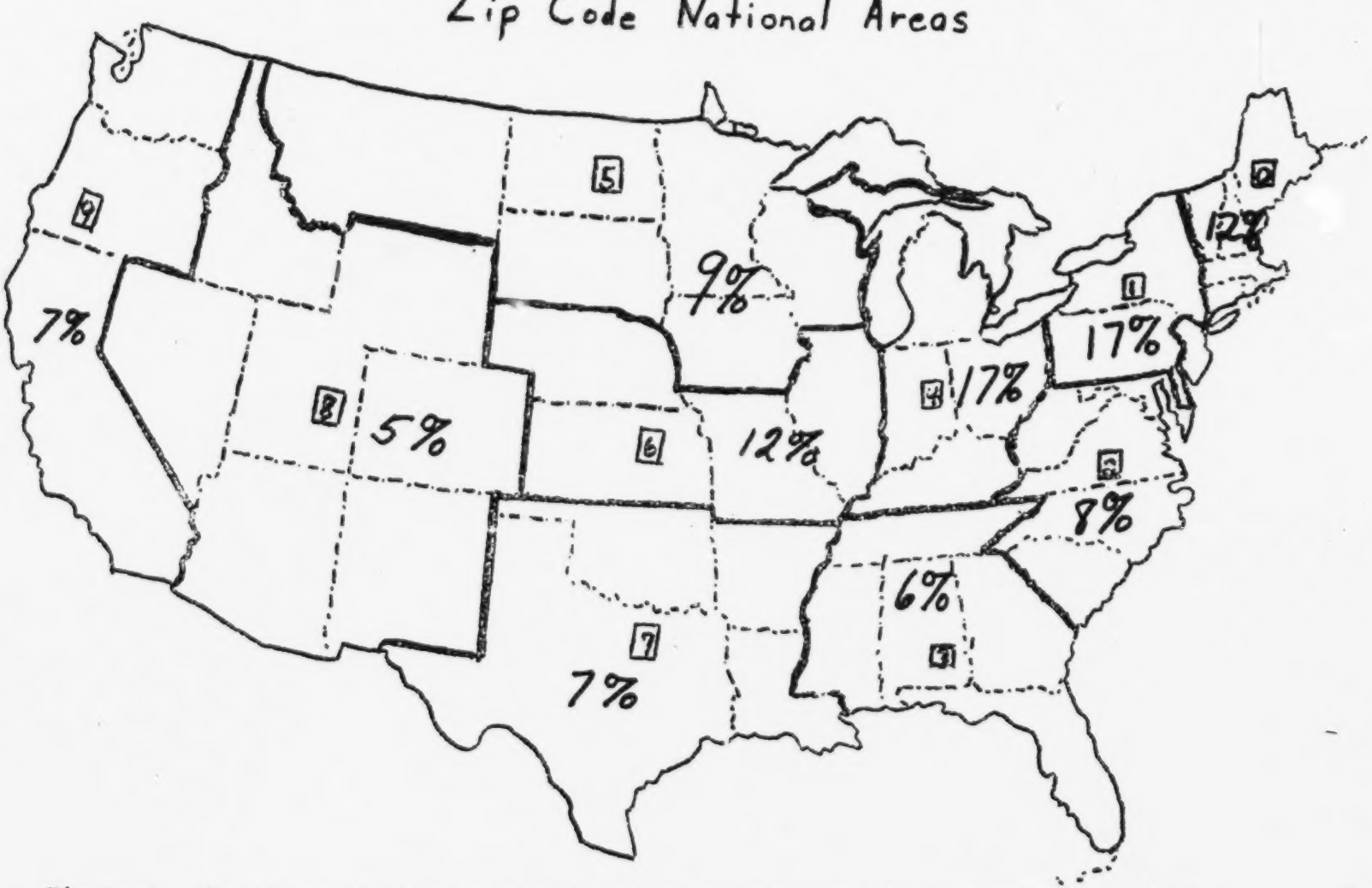

Figure 1. Per Cent of Responses Broken Down by First Digit of ZIP Code Number

school district; and age range of the respondents. Data from the three pieces of material were combined and analyses were computed by these factors and presented by the question as they appeared in the instrument (Appendix A).

Data are presented in two sections. Basic data relative to each piece of material are presented in the body of this report. Breakdown of data by the selected demographic factors are presented in tabular form in Appendix C. It is believed that this organizational structure will aid the reader in his assimilation of the extensive data and their analysis which are presented herewith.

Tables 3, 4, and 5 present the total per cent of respondents by each demographic factor analyzed.

TABLE 3. TYPE OF SCHOOL DISTRICT IN WHICH RESPONDENT TAUGHT CLASSIFIED BY POPULATION SIZE

Size	f	% Resp.
Rural	108	13
Suburban	130	16
Village (under 10,000)	131	16
Town (10-50,000)	223	28
City (50,000+)	189	23
No Response	32	4
Total	813	100

TABLE 4. EDUCATIONAL BACKGROUND OF RESPONDENTS

Degree	f	% Resp.
Less than bachelor's	41	5
Bachelor's degree	170	21
Bachelor's degree plus	312	38
Master's degree	99	12
Master's degree plus	158	19
Specialist's degree	13	2
Doctorate	5	1
No response	15	2
Total	813	100

TABLE 5. AGE RANGE OF RESPONDENTS

Age Range	f	% Resp.
21 - 25 years	256	31
26 - 30 years	222	27
31 - 40 years	161	20
41 - 50 years	102	13
Over 50	59	7
No response	13	2
Total	813	100

Finally, the reader may be interested in some other interesting demographic breakdowns:

There were 354 responses received from males (44 per cent), while 443 responses were received from females (54 per cent). Two per cent of the respondents (f=16) failed to identify their responses by indicating their sex on the instrument. One young person failed to indicate its sex but did include several pieces of literature and sent the researcher a personal letter decrying the inclusion of this particular item on the instrument.

A total of 424 responses were received as a result of the initial inquiry (52 per cent) while 384 resulted from the follow-up query (48 per cent). Sad to relate but 5 of the returns could not be identified due to researcher error.

Finally, an analysis of the respondents by years of teaching experience is presented below.

TABLE 6. YEARS OF TEACHING EXPERIENCE OF RESPONDENTS

Years of Experience	f	% Resp.
1 - 3	222	27
4 - 7	220	27
8 - 10	75	9
11 - 20	139	17
21 - 30	54	7
31 - 40	12	1
41+	2	-1
Student	76	9
No response	13	2
Total	813	100

Receipt of materials. This question was designed to determine if the addressees had received the materials.

The question read:

> Did you receive copies of the enclosed piece of free material from The American Iron and Steel Institute?
>
> 1. Yes 2. Not sure 3. No
>
> (If answer is NO please stop here and return opinionnaire.)

This may well be the major built-in-bias in the study. As previously mentioned The Story of Environment and Industry was distributed through a "blanket mailing" to all members of a selected national educational association. In addition the researchers enclosed one piece of each of the materials with the questionnaire. The use of the term "copies" in the instrument, couples with the mailing of a single copy and the enclosing of another single copy with the instrument led to some confusion on the part of some recipients of the instrument.

Because of this confusion (even though only a few respondents expressed it on their returns) it was determined to use the entire number of returns, rather than only those who had received the materials. This will result in a smaller per cent of responses which may be classified as "positive" yet, if there be error, it will be made on the side of caution. This is deemed advisable in all cases.

Examination of the data in Table 7 reveals that in excess of 85 per cent of the total respondents indicated

TABLE 7. NUMBER AND PER CENT OF RESPONDENTS WHO INDICATED RECEIVING MATERIALS FROM A.I.S.I.

Receipt	Envr. & Indust.		Mark Steel		Steel Scien.		Totals	
	f	%	f	%	f	%	f	%
Materials rec'd.	263	90	237	82	203	88	703	86
Not sure/rec'd.	7	2	19	7	19	8	45	5
Not received	17	6	29	10	7	3	53	7
No response	7	2	3	1	2	1	12	2
Totals	294	100	288	100	231	100	813	100

they had received the materials. It was therefore assumed, despite the expressed confusion over the singular copy and the stated copies in the instrument, that it was permissible to generalize the findings of this study to the population(s) served by The American Iron and Steel Institute. The reader may wish to consider the piece of material The Story of Environment and Industry as a separate population (because of the method of distribution of the materials), however the research team considered each piece of material separately in the data presented in the body of this report, and then considered them as a whole (i.e. free materials). Data presented in Appendix C were not broken down by individual piece of material, but rather were considered as an entity.

That is to say that analyses are presented by the separate demographic and other factors without regard to the piece of material. All three pieces of material were included in this analysis.

Level of use of materials. Examination of the data presented in Table 8 revealed that the heaviest use of these materials came at the junior or senior high school level. In one case, that of Steel Science and Our Society was this basic pattern changed. In the case of this piece of material the level of highest use was at the intermediate grade level.

One somewhat surprising factor, in the opinion of the researchers, was the level of use pattern established in regard to the piece of material Mark Steel Fights Pollution. It had been assumed that this piece of material, because of its comic book nature, would be used at a lower level than either of the other two pieces. Such was not the case. Forty-one per cent of the respondents indicated they used it at the junior high school level while 26 per cent indicated that they used it at the intermediate grade level.

Again, Steel Science and Our Society showed a pattern of use at the lower grade levels which was not expected. Twelve per cent of the respondents indicated they used it at the primary grade level and the highest per cent of use indicated was at the intermediate grade level. This was a somewhat surprising factor in view of the subjective analysis

TABLE 8. NUMBER AND PER CENT OF TEACHERS WHO INDICATED USING MATERIALS - CLASSIFIED BY LEVEL OF USE

Level	Envr. & Indust.		Mark Steel		Steel Scien.		Totals	
	f	%	f	%	f	%	f	%
Primary	1	-1	2	1	28	12	31	4
Intermediate	56	19	74	26	73	32	203	25
Junior High	128	43	118	41	35	15	281	35
Senior High	62	21	36	13	31	13	129	16
College	0	-	0	-	15	7	15	2
Vocational	1	-1	1	-1	1	-1	3	-1
Did Not Use	13	4	10	3	24	10	47	6
Other	9	3	10	3	8	3	27	3
No Response	23	8	37	13	16	7	76	9
Totals	294	100	288	100	231	100	813	100

of the material's contents (which was not included as an integral part of this study) except as covered in Questions 9, 12, and 13 and, by inference in Question 11.

Overall, the highest use of the materials was made at the junior high school level, followed by the intermediate and senior high school levels.

Reasons for requesting materials. This was one of the most interesting areas of the study to be analyzed. The most preponderant reason indicated for ordering these materials

TABLE 9. NUMBER AND PER CENT OF RESPONSES INDICATING PURPOSE FOR REQUESTING MATERIAL FROM A.I.S.I.

Purpose	Envr. & Indust.		Mark Steel		Steel Scien.		Totals	
	f	%	f	%	f	%	f	%
Looking curr.mtl.	174	59	152	53	108	47	434	53
Illus. mtls.	37	13	44	15	28	12	109	13
Curious	36	12	41	14	19	8	96	12
Build res. file	68	23	56	19	123	53	247	30
Mtl's/Capable Sts	12	4	9	3	9	4	30	4
Mtl's/Less Capabl	16	5	18	6	3	1	37	5
Mtl's/Entire Cl.	50	17	46	16	42	18	138	17
Other Reasons	13	4	11	4	17	7	41	5

No Totals: Multiple responses received

was that of "looking for current materials to enrich teaching materials." As is indicated in Table 9 this was far and away the reason indicated most often by all respondents. This was followed, but not that closely, by the teacher's indicated "wish to build up resource file." This was followed far more closely by the teacher's desire, indicated by the phrase "looking for resource materials for the entire class." These three reasons constituted the most prevalent reasons indicated by the respondents for requesting the

materials. The reader is cautioned, in reading this table and several others where multiple responses were possible (if not encouraged by the instrument itself) that the same teachers may have indicated more than one reason for ordering these materials. This might lend to the reader drawing unwarranted conclusions unless he is aware of this.

Most interesting is the fact that more teachers indicated that they had requested Steel Science and Our Society for their use in building a resource file. These data, coupled with the data in Table 8, might lead to the tenuous conclusion that a number of primary teachers who are using this piece are doing so as a resource material.

Use made of materials after receipt. The data presented in Table 10, which dealt with the use the teacher indicated he made after it was received, revealed a somewhat similar pattern between the three separate pieces of material. The most common use was that of supplementary material, followed by "pupil reference material" and "enrichment material for the entire class." This response pattern was broken only in the case of the piece Steel Science and Our Society. Here the second most frequent response received was that of use as "teacher reference material." This is to be expected, in view of the response pattern established in the data presented in Tables 8 and 9.

Another point of interest in the data is the way in which the respondents indicated that they had used The

TABLE 10. NUMBER AND PER CENT OF RESPONSES INDICATING USE MADE OF MATERIALS AFTER RECEIPT FROM A.I.S.I.

Use Made	Envr. & Indust.		Mark Steel		Steel Scien.		Totals	
	f	%	f	%	f	%	f	%
Supp. Material	123	42	134	47	83	36	340	42
Basic Material	21	7	21	7	21	9	63	8
Teacher Ref.	47	16	38	13	69	30	154	19
Pupil Ref.	69	23	52	18	50	22	171	21
Bulletin Bd.	80	27	35	12	22	10	137	17
Enr. Mtl./Cap.	8	3	9	3	11	5	28	3
Enr. Mtl./Less Cap	3	1	19	7	1	-1	23	3
Enr. Mtl./Class	39	13	46	16	48	21	133	16
Other	11	4	15	5	17	7	43	5

No Totals: Multiple responses received

Story of Environment and Industry as a part of a display or bulletin board. Examination of the materials would tend to support these data.

Intention to reuse materials next year. When asked the question "If available, would you use these materials next year?" 60 per cent of the respondents indicated that they would. These data are presented in Table 11. The highest affirmative replies were received regarding the

TABLE 11. NUMBER AND PER CENT OF RESPONSES INDICATING INTENTION TO REUSE MATERIALS NEXT YEAR

Response	Envr. & Indust.		Mark Steel		Steel Scien.		Totals	
	f	%	f	%	f	%	f	%
Yes	185	63	164	57	138	60	487	60
Not Sure	47	16	49	17	44	19	140	17
No	6	2	12	4	5	2	23	3
No Response	56	19	63	22	44	19	163	20
Totals	294	100	288	100	231	100	813	100

piece of material The Story of Environment and Industry. This same piece of material also received the lowest per cent of responses relating to indecision about reuse as well as a flat rejection.

Reasons given for not using these materials. Data regarding the indicated reasons for not using these materials with students are presented in Table 12. As pointed out previously (page 27) there may well be confusion regarding this question on the part of the respondents. Examination of the raw data, which occurred during the "coding" process, revealed that some persons who indicated using these materials also completed Question 11. Some persons who indicated not receiving the materials (Question 6) also completed the

TABLE 12. NUMBER AND PER CENT OF RESPONSES INDICATING REASON FOR NOT USING MATERIALS (TOTAL SAMPLE)

Reason Indicated	Envr. & Indust.		Mark Steel		Steel Scien.		Totals	
	f	%	f	%	f	%	f	%
Reading diff.	11	4	12	4	18	7	41	5
Insuff. quant.	16	5	21	7	2	-1	39	5
Incomp.w/text	0	-	2	-1	0	-	2	-1
Incomp.w?tch.m.	0	-	0	-	1	-1	1	-1
Class time	6	2	4	1	10	4	20	2
Fit no unit	13	4	15	5	20	9	48	6
Not Warrant time	1	-1	4	1	1	-1	6	-1
Others	5	2	6	2	14	6	25	3

No Totals: Multiple responses received

instrument (presumably because they had received the piece of material with the questionnaire). None-the-less, the data were analyzed for their own worth.

Most interesting was the fact that the receipt of an "insufficient quantity" of materials in the case of The Story of Environment and Industry was the most frequently indicated reason for the non-use of these materials. This was most certainly the case in the mailing of single copies to all members of the selected national society, or the

receipt of a single piece of material with the survey instrument.

The responses relating to Steel Science and Our Society again tend to support the previously presented data related to this piece of material. Over 9 per cent of the respondents indicated that the material fit no unit while 7 per cent indicated that the reading level was too difficult.

Assessment of the effectiveness of the materials. The respondents indicated an overall support of the materials relative to their instructional effectiveness. These data are presented in Table 13. Of particular note is the fact that the respondents, while indicating their overall support, did not lavish a great deal of praise (as would have been indicated by the use of "very effective") but they did indicate that they believed the materials were "effective."

Of some interest is the fact that no respondent indicated that they believed the piece of material titled The Story of Environment and Industry to be of no value. In the case of the other two pieces of material some respondents did indicate that they believed the materials to be of no value.

Of most value to The American Iron and Steel Institute is the fact that the respondents indicated a highly positive support of the materials (nearly 60 per cent). Less than one-forth of the respondents indicated a "less than wholehearted" support, and only 1 per cent indicated "no value."

TABLE 13. NUMBER AND PER CENT OF RESPONSES INDICATING TEACHER ASSESSMENT OF EFFECTIVENESS OF MATERIALS

	Envr. & Indust.		Mark Steel		Steel Scien.		Totals	
	f	%	f	%	f	%	f	%
Very Effective	37	12	51	17	27	11	115	14
Effective	134	46	117	41	114	50	365	45
Somewhat eff.	78	27	72	25	36	16	186	23
No Value	0	-	6	3	3	1	9	1
No Response	45	15	42	15	51	22	138	17
Totals	294	100	288	100	231	100	813	100

These data tend to support the findings of Netzer and Burk as reported in the literature.

Importance of material's content. Data regarding the respondent's assessment of the relative importance of the content of the materials are presented in Table 14. Over half of the respondents in each case reported the materials to be either "very" or "relatively" important. This is interpreted to be supportive of the materials. In all three pieces of material approximately one-third of the respondents indicated that they believed the contents to either "somewhat" or of "no" importance. This may be because of the extremely wide range of use (as indicated inTable 8) or

TABLE 14. NUMBER AND PER CENT OF RESPONSES INDICATING TEACHER ASSESSMENT OF IMPORTANCE OF CONTENT OF MATERIALS

Description of Content	Envr. & Indust.		Mark Steel		Steel Scien.		Totals	
	f	%	f	%	f	%	f	%
Very Important	33	11	32	11	17	7	82	10
Gen'ly Important	127	43	122	42	101	44	350	43
Somewhat Imp.	88	30	79	28	60	26	227	28
Not Important	2	1	8	3	2	1	12	1
No Response	44	15	47	16	51	22	142	18
Totals	294	100	288	100	231	100	813	100

other factors which will be discussed in the analysis of the remarks. It is believed that the wide range of users may contribute to some of the expressed dissatisfaction with the materials.

Despite the number and per cent who were negative relative to these materials, over half of the respondents did give an affirmative (supportive) response.

Respondent's attitude toward industry sponsored materials. Data concerning the respondents attitude toward industry sponsorship of the materials (which some may interpret as the "advertising message") is that this has little or no effect or cannot be determined.

TABLE 15. NUMBER AND PER CENT OF RESPONSES INDICATING TEACHER ASSESSMENT OF FACT THAT MATERIALS WERE INDUSTRY SPONSORED

	Envr. & Indust.		Mark Steel		Steel Scien.		Totals	
	f	%	f	%	f	%	f	%
Has no effect	118	40	124	43	106	46	348	43
Is unobtrusive	49	16	47	16	40	17	136	16
Intrudes	22	8	15	5	4	2	41	5
Cannot be det'd.	63	22	57	20	50	22	170	21
No response	42	14	45	16	31	13	118	15
Totals	294	100	288	100	231	100	813	100

Only 5 per cent of the respondents believed that the fact that the materials were industry sponsored intruded at all. These data are interpreted as being highly supportive of these materials and their use in the educational programs of the schools.

Time reported as being spent in teaching, using A.I.S.I. materials. A plurality of respondents reported using the three materials for teaching purposes between one and two hours. The next most frequently chosen time interval was that of less than one hour. A complete breakdown of these data is presented in Table 16.

It is again interesting to note the agreement between

TABLE 16. NUMBER AND PER CENT OF RESPONSES INDICATING TIME SPENT IN CLASSROOM USE OF EACH PIECE OF MATERIAL

Time range	Envr. & Indust.		Mark Steel		Steel Scien.		Totals	
	f	%	f	%	f	%	f	%
Less than 1 hour	68	23	79	27	41	18	188	23
1 - 2 hours	94	32	90	31	57	25	241	29
3 - 5 hours	34	12	16	6	29	12	79	10
More than 5 hrs.	7	2	8	3	9	4	24	3
Cannot be det'd	50	17	42	15	44	19	136	17
No Response	41	14	53	18	51	22	145	18
Totals	294	100	288	100	231	100	813	100

the respondents on all three pieces of material. It would appear that when free materials are used, at least the three under study in this project, that the materials tend to be used in a similar fashion, regardless of which piece is utilized.

Analysis of comments. There appear to be several common themes which run throughout the comments, regardless of which piece was analyzed.

The first, and a highly positive one, is the general tone of support which the materials receive. Teachers appear to be genuinely appreciative of the fact that these materials are provided them for instructional purposes.

The second is one of more of a request in nature. That is that they would appreciate additional materials, particularly those which contain suggested activities. It would appear that the respondents were requesting that a form of teacher's manual be provided them. This is something that The American Iron and Steel Institute might well consider.

When asked for suggestions regarding improvements the one response which appeared to run throughout was that of the readability level of the material. This may well be a felt need, but again this concern may have been suggested by the question which was asked immediately prior to the "remarks" section. The question was: "What is your estimate of the readability level of this piece of material?" The researchers believe that the respondents may have been given a "set" by this question and that some of the suggestions made may have been encouraged by this question being contained in the instrument.

However, despite this limitation (if, indeed, it is not a built-in bias), the respondents did make several suggestions which might well be considered in the development of any future materials.

Finally, the general comments, when they were elicited tended to be highly supportive of these materials.

The research team believes that the only way for the reader to really make use of these highly valuable comments. is to read them in their entirety.

They are presented in Appendix B. The organizational pattern is as follows:

Presented by piece of material:

The Story of Environment and Industry

Mark Steel Fights Pollution

Steel Science and Our Society

For each piece of material the remarks for each of the following sections have been organized and placed together:

Please tell us in your own words what you believe your students learned from this piece of material?

Have you any suggestions for improvement?

Use this space for any comments you have about this you may have about this piece of material.

Each response is identified by the identification number of the respondent.

Complete data are available in their raw form from the Library, Indiana University at South Bend, South Bend, Indiana 46615.

CHAPTER IV

SUMMARY, FINDINGS, AND CONCLUSIONS

This final chapter is presented in three sections. The first section deals with the problem of the study, summarizes the pertinent literature and realted research, and outlines the procedures which were followed. The second section recapitulates the findings of the research itself. The third and final section states certain conclusions which were drawn from the findings and offers recommendations for further study.

SUMMARY

The problem. The problems of this study were to analyze teacher assessment of the following factors related to selected printed materials provided these teachers by The American Iron and Steel Institute.

These factors were:

1. The instructional level at which these materials were utilized.

2. The teachers reason(s) for requesting the materials from the A.I.S.I.

3. The instructional use made of the materials after receipt.

4. Reason(s) for not using the materials, if indeed they were not used.

5. A comparison of the teachers' judgments of these

materials when compared with other materials.

6. An assessment of teachers' opinions concerning the effect that industry sponsorship of the materials might have upon the students.

7. A comparison of teachers' judgments of the materials content and its effectiveness as an instructional tool.

8. A compendium of user comments, classified by the title of the material and the opinions of its learning impact, suggestions for improvement, and any general comments the user wished to make.

Related literature. A review of the related literature revealed that free and inexpensive materials are used today in classrooms to a much greater degree than in the past. The use of these materials in the classroom is encouraged by recognized experts in the field of social studies, science, and other disciplines. This overall tone of encouragement is made despite certain inherent limitations imposed upon the materials by the fact that they are free and/or inexpensive and are industry sponsored (subsidized). The related literature further revealed that there has been a shift in teacher attitude toward the acceptance and use of these materials.

Methodology. A normative survey was conducted, using an instrument specifically developed and modified for that purpose, of teachers who had received one of the three pieces of printed materials from The American Iron and

Steel Institute. The three pieces of printed material chosen for inclusion in this study were The Story of Environment and Industry, Mark Steel Fights Pollution, and Steel Science and Our Society. All of these materials have been provided teachers an no cost by The Institute. An initial sample of 1,200 persons requesting these materials was randomly selected, from users of these materials. A follow-up letter was used to increase the per cent of responses.

Replies were analyzed using a per cent of responses. These responses were classified by name of piece of material, area of the counrty in which they were used, age range of respondents, level of educational training, and size of the school district in which the respondent taught.

FINDINGS

The following findings, indicated by the results of the analysis of the data were reported:

1. An overall total of 75 per cent of the questionnaires were returned. Because of this per cent of responses generalizations were drawn to the population of the users of these materials.

2. The matter of "acceptability" was judged using several factors. These factors are analyzed separately and then summarized:

   a. A total of 59 per cent judged the materials as either "very effective" or "effective."

b. A total of 53 per cent judged the content as being either "very important" or "important."

c. A total of 60 per cent of the respondents replied that they would reuse these materials if they were available again next year.

These results, when analyzed in their entirety, tend to show a positive degree of acceptance on the part of the using teachers.

3. When assessed by teachers who did not use the materials, while only a small per cent did not use them, there appeared to be a need on the part of the producer to pay closer attention to the readability level of the materials.

4. When asked about their opinion of the materials in view of their being industry sponsored, nearly two-thirds of the respondents believed it either had no effect or that it was unobtrusive. When the above responses were coupled with the replies of those who believed it could not be determined four of every five respondents responded in a positive manner.

5. The respondents overall attitudes toward these materials, as determined by an interpretation of their responses, was favorable and positively oriented.

6. A subjective evaluation of the comments received led the investigators to classify these as highly favorable and quite supportive.

CONCLUSIONS

Based upon the data collected, the analyses made, and the findings reported, the following conclusions were drawn:

1. The respondents, who are assumed to be representative of the population of users of these materials, are favorably inclined toward the printed materials provided by The American Iron and Steel Institute. No apparent differences exist when the materials are considered separately by area of the country, age or educational background or experience of the user, or size of the school district.

2. Because most of the recipients reported that they had received and used the materials, it is believed that these materials do have a place in the schools of the United States. This finding is supported by the previously reported research of Addicott, Netzer, and Burk. The conclusion is therefore drawn that industry and related trade associations should continue to provide these and similar materials to teachers (schools).

3. The responses indicate that these materials do have great instructional value to the user, particularly in providing current resource material as well as a variety of materials to the users.

4. The responses of the respondents in this study revealed that they do welcome these materials. These data

tend to reaffirm the study conducted in 1972 by the principal researcher in this study and to refute the contentions of Cooney and the AASA booklet Choosing Free Materials for Use in the Schools.

5. Examination of the comments made by the users tended to reinforce the positive nature of the above stated conclusions. These materials tended to be well received and highly used by the recipients. The reader would be well advised to study these comments in detail.

6. The one limitation of this study which was not apparent in the design was the high per cent of returns of the materials mailed using the mailing list of the selected national organization of teachers. While these results may be slightly skewed (if this is indeed the case) it is believed that the data are of sufficient worth to be included in the study and to permit generalizations to be drawn.

Recommendations for further study. Since the present study revealed a positive attitude toward and acceptance of these materials further study should be initiated in this area. Other trade organizations and members of the industrial community should consider sponsorship of similar studies in order to confirm or refute the findings of this study.

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APPENDIX A

INDIANA UNIVERSITY at SOUTH BEND
1825 NORTHSIDE BOULEVARD
SOUTH BEND, INDIANA 46615

DIVISION OF EDUCATION

TEL. NO. 219--282-2341

January 29, 1973

Dear Teacher:

You have received, within the last eighteen months, a package of free printed materials from The American Iron and Steel Institute, Washington, D.C. The name of this piece of material was (name inserted here). We are attempting to evaluate the use which you made of this particular educational aid. To help you with your evaluation we have enclosed one copy of it with this letter and questionnaire.

Will you please take a few minutes of your time to complete the enclosed questionnaire concerning this piece of material. If you did not make use of this piece of material but gave it to another teacher please give this packet to him also.

The results of this survey will aid The American Iron and Steel Institute in the preparation of future educational materials. Your cooperation is needed and will be deeply appreciated. We have enclosed a self-addressed stamped envelope for your convenience in replying.

We will be happy to share a summary of the results of this study with you if you will complete the enclosed mailing label and return it to us with your completed questionnaire.

Sincerely,

Charles R. DuVall
Associate Professor
for American Iron and
Steel Institute

INDIANA UNIVERSITY at SOUTH BEND
1825 NORTHSIDE BOULEVARD
SOUTH BEND, INDIANA 46615

DIVISION OF EDUCATION

TEL. NO. 219 -282-2341

57

March 1, 1973

Dear Teacher:

On January 29th I mailed you a questionnaire dealing with your reaction to one of the pieces of free material produced and distributed by The American Iron and Steel Institute, Washington, D.C. To date I have not received all of the replies. If you have already responded please accept my sincere thanks.

If you have not yet responded please consider that the successful completion of this study has great potential value to educators as well as industry. The results will have an effect in the future production of materials of this type, thus we are particularly anxious to receive replies from a representative sample of classroom teachers and other users of these materials. If you are able to complete and return the questionnaire it will be of great value to us.

In the event you misplaced the first questionnaire I have enclosed another copy, as well as a self-addressed postage paid envelope.

I will be happy to share a summary of the results of this study with you if you will complete the mailing label and return it with your completed questionnaire.

Thank you for your cooperation in this study.

Sincerely,

Charles R DuVall

Charles R. DuVall
Associate Professor
for American Iron and
Steel Institute

AMERICAN IRON AND STEEL INSTITUTE - OPINIONNAIRE

Number _____ (for office use only)

Please answer the following questions concerning yourself and your school. Place the number of the most appropriate response in the blank at the right. Your responses will be transcribed on punched cards for analysis.

1. Type of school district in which you teach: ____

   1. Rural
   2. Suburban
   3. Village (under 10,000)
   4. Town (10-50,000)
   5. City (50,000+)

2. What is your educational background? ____

   1. Less than bachelor's degree
   2. Bachelor's degree
   3. Bachelor's degree plus
   4. Master's degree
   5. Master's degree plus
   6. Specialist's degree
   7. Doctorate

3. How many years of teaching experience do you have? ____

   1. Student
   2. 1 - 3
   3. 4 - 7
   4. 8 - 10
   5. 11 - 20
   6. 21 - 30
   7. 31 - 40
   8. 41+

4. What is your present age range? ____

   1. 21 - 25 years
   2. 26 - 30 years
   3. 31 - 40 years
   4. 41 - 50 years
   5. over 50 years

5. What is your sex? 1. Male 2. Female ____

. . . . . .

Name of piece of material:

. . . . . .

6. Did you receive copies of the enclosed piece of free material from The American Iron and Steel Institute? _____

   1. Yes 2. Not sure 3. No
   (If answer is NO please stop here and return opinionnaire.)

7. Please indicate the level at which you used this piece of material: _____

   1. Primary
   2. Intermediate
   3. Junior High
   4. Senior High
   5. College
   6. Vocational
   7. Did not use
   8. Other (specify) _____

8. What was your purpose in sending for this piece of industry sponsored material? _____

   1. Looking for current materials to enrich teaching units
   2. Have special need for illustrative materials
   3. Curious to see what the organization had to offer
   4. Wish to build up resource file
   5. Looking for resource materials for more capable students
   6. Looking for resource materials for less capable students
   7. Looking for resource materials for entire class
   8. Other (specify) _____

Please turn page

. . . . . .

Note: If you would like a summary of this study please complete the enclosed mailing label and return it with this opinionnaire to:

Charles R. DuVall
1825 Northside Boulevard
Indiana University at South Bend
South Bend, Indiana 46615

9. What use did you make of this piece of material after you received it? ____

1. As supplementary material
2. As basic material for an instructional unit
3. As teacher reference material
4. As pupil reference material
5. As part of a display (bulletin board)
6. As enrichment material for more capable students
7. As enrichment material for less capable students
8. As enrichment material for entire class
9. Other (specify) _____

10. If available, would you use these materials next year? ____

1. Yes 2. Not sure 3. No

11. If you did not use this material, which one of the following best describes your reasons? ____

1. Reading level too difficult
2. Insufficient quantity available
3. Incompatible with textbook treatment
4. Incompatible with teaching method
5. Class time available did not warrant full use of material
6. Did not fit into any units being taught
7. Material did not warrant use of class time
8. Other (specify) _____

12. Compared to other instructional resources, how effective was this material? ____

1. Very effective
2. Effective
3. Somewhat effective
4. No value

13. Compared to other sources and materials students might use in your course, how important were the learnings gained from this piece of material? ____

1. Very important
2. Generally important
3. Somewhat important
4. Not at all important

14. Does the fact that this material is industry sponsored: ____

1. Has no effect
2. Is unobtrusive
3. Intrudes
4. Cannot be determined

15. Please estimate how much time your class spent in using this material: ____

1. Less than 1 hour
2. 1 - 2 hours
3. 3 - 5 hours
4. More than 5 hours
5. Cannot be determined

16. What is your estimate of the readability level of this piece of material? ____

_____grade level

17. Please tell us in your own words what you believe your students learned from this piece of material.

Have you any suggestions for improvement?

18. Use this space for any general comments you may have about this piece of material.

Use additional sheets of paper for comments if you wish. We welcome your suggestions.

APPENDIX B

APPENDIX B

"The Story of Environment and Industry"

Written comments received in response to the question, "Please tell us in your own words what you believe your students learned from this piece of material?"

"Used to get information for projects." (1-1346)

"Gained a new insight into problems faced by everyone in regards to pollution and need to find uses for wastes." (1-1163)

"The involvement of their lives over the concerns of environmental pollution." (1-0864)

"I felt they got more from the pictures." (1-0510)

"Industry - vs. - environment." (1-0341)

"A certain amount of generalized knowledge concerning industry's interest in the elimination of pollution, and it's efforts in this direction." (1-0196)

"Unbiased information not aimed at industry." (1-0335)

"History of pollution." (1-0163)

"That there is a problem and something must be done." (1-0353)

"Great supplement to our text." (1-0282)

"This combined with other material can show that the world is in bad shape, but can be improved." (1-0155)

"They learned in greater degree the important relationship between environment and industry." (1-0008)

"That pollution is a real problem." (1-0605)

"We incorporated this with an ecology unit. The students gained an understanding of industry's role." (1-0438)

"Only one or two worked with material, but helpful as a resource guide." (1-0844)

"Interest, in checking career opportunities - information on pollution - information on industries and how they contribute to our national life." (1-0395)

"Environmental control." (1-0692)

"My students did not read it - some terms were too difficult for easy reading at 6th grade levels. I used it for factual information and class discussion. It would be hard to say exactly what they learned." (1-0939)

"My students learned much about pollution and about solutions to the problem. It served as a general guide as well as a source of information. Its organization made it useful in the preparation of research papers." (1-1241)

"Used for content of message and for the way pictures show aciton." (1-0172)

"Importance of ecology and what industry is doing." (1-0599)

"When I move into the energy part, this can be quite helpful as resource and also as supportive material." (1-0188)

"Excellent reinforcement material." (1-1343)

"The importance of the environment." (1-0209)

"Industrial point of view of ecology and pollution." (1-0160)

"The role steel plays in our economy." (-10887)

"Man's involvement in improving his environment and industry's efforts in this area." (1-0824)

"Good summary of our present situation." (1-0417)

"The students learned that industry is concerned with the environment and is doing something to improve it." (1-0017)

"A more complete view of the pollution problem and how it developed into a problem over the years." (1-1053)

"Awareness." (1-0010)

"This was used to reinforce material already presented." (1-1335)

"About environmental problems in the U.S.A." (1-0859)

"This material was used as a bulletin board display, therefore it is impossible to evaluate what the students learned from the display." (1-1339)

"They found it interesting that we have had a few incidents of pollution before recently." (1-0580)

"More up-to-date opinion on correlation between industry and ecology." (1-0659)

"Additional concepts concerning the environment, ecology, and an industrial viewpoint and perspective on the environment." (1-0662)

"Industry, as a major polluter, has begun to take responsibility for the damage they have done. Cleaning the earth is a major task and needs much public and private involvement." (1-0443)

"An understanding of some of our environmental problems and what is being done about them, or can be done." (1-0548)

"Introduced to idea of ecology and what they, as young scientists can do about it." (1-0516)

"Industrial processes - utilization of by-products." (1-0507)

"As librarian I do not know what the student learned, but it was used." (1-0699)

"The students were informed more about the environmental problems. With one page information they grasped the material very well." (1-0638)

"What ecology is and attempts of industry to curb pollution at many levels." (1-0784)

"They found it most thought provoking, and enlightening. It resulted in a determination to try to improve the environment as they continue to grow." (1-0756)

"Supplementary to Science Unit on kinetic energy and steam engine, we read leaflet on water and tremendous heat. Then, read a solution found in comic books on page six. This relates to an ecological solution." (1-0733)

"That industry has a conscience and that industry and citizenry must work together in mutual understanding of environmental problems." (1-0724)

"The magnitude of the pollution problem and the complexity of the solution." (1-0964)

"Up-to-date information about todays situation." (1-0950)

"To be more concerned about their environment and to care for it." (1-0926)

"The broad scope that pollution affects man and his environment; what is being done to correct man-made problems." (1-0915)

"Being a city school we had real examples to back up all of your points." (1-1130)

"Students leaned that there are three types of natural resources that are major sources of pollution." (1-1085)

"The up-to-date pollution problems are presented together with modern cures for same." (1-1076)

"This material helps students to understand the interrelationships of different types of pollution and what steps can be taken to aid in solving the problem." (1-0988)

"More and deeper understanding of pollution and its causes." (1-1232)

"States producing steal and iron, coke and products made from these things." (1-0670)

"They were able to see that large industry does care!" (1-0701)

"Some valuable facts concerning pollution." (1-0566)

"They learned a few basics about air, land, and water pollution, but they enjoyed most the short History of pollution." (1-0388)

"More about conservation." (1-0202)

"Aroused interest - reference good." (1-0955)

"Importance of ecology." (1-0274)

"The role of industry in attempting to prevent pollution and promote ecology." (1-1235)

"Man's responsibility for his own planet." (1-0974)

"What industry is doing to control pollution problems." (1-0137)

"Some causes of pollution and history of it." (1-0993)

"They learned the history of pollution, which most thought was of very recent origin. They learned new ideas about land, water, and air pollution." (1-0432)

"They were able to associate and see the need for more environmental control." (1-0429)

"Good introduction to some pollution problems." (1-0415)

"Man and his relationship to environment. All elements of society share in the solution of the problem." (1-0412)

"I have no idea - no evaluation was attempted. Exposure and reinforcement are major value to this type of thing." (1-0369)

"The three areas where pollution control is needed." (1-0367)

"Summary of environmental problems. That industry is concerned." (1-0318)

"We will learn effects industry has on our environment and what our environment is." (1-0284)

"It helped to emphasize the magnitude of the problem facing our nation if we are to have an acceptable environment to pass on to future generations." (1-0279)

"My advanced students learned what a big industry in this country was doing for ecology. They felt nothing was being done as much as the different items explained and all the cities doing something." (1-0272)

"Used as reference material in library. No follow-up on my part." (1-0276)

"More about the industrial role in the pollution crisis." (1-0269)

"Interrelationship of man and his environment; that what we do effects others, too." (1-0265)

"Ecology is the number one problem students are concerned with today. Your material informed them of the challenge of the future for them to change." (1-0256)

"They learned about how things are interrelated and cannot be separated - problems involved many aspects." (1-0204)

"The important thing they learned is that industry does care because they felt that this was not so." (1-0072)

"I believe they learned a great deal about their environment. Many current and future problems were revealed to them." (1-0046)

"Positive attitudes toward land improvement, etc. The advantages, ways and means of bettering the world." (1-0043)

"Fuller understanding of the size of existing problems." (1-0035)

"The importance of recycling and problems of dirty environment." (1-0480)

"How industry helps environment - they have heard mostly the negative side." (1-0874)

"Availability of 'outside' information and need to gather facts in forming opinions." (1-0787)

"Made my students better understand problems of industry etc. We are highly rural in our area and not acquainted with problems of industry." (1-0393)

"Became much more informed about steel industry and what it is doing." (1-0626)

"My pupils gained many ideas concerning modern industry. An excellent social studies tool." (1-1433)

"Information which was supplemental to what they learned in science classes." (1-0061)

"Raw materials used in Iron and Steel - products made of steel." (1-1179)

"Students gained a viewpoint unlike many textbooks sources on the subject, therefore it supplemented their learning and it acted as a source of comparative study with other source materials." (1-0695)

"More facts about steel industry." (1-0902)

"Broadened their knowledge of industry and their country." (1-1118)

"A greater appreciation of what one industry is doing in the area of ecology." (1-0372)

"Specifically used in earth science classes - helped to balance the view which may be distorted because of much ecological misinformation." (1-0634)

"It is difficult to determine exactly what the students learned from the poster. We were dealing with industry and effect on ecology - among other areas of interest." (1-1149)

"This was used by students who were doing individual projects on this subject." (1-0247)

"Relationship between modern industry and environment concerns." (1-1028)

"How the environment is greatly influenced for good or bad by industry. They showed it could be helpful." (1-0614)

"Students could use pamphlet at will so it is hard to tell." (1-1341)

"Adults are trying to make the world a better place in which to live - I hope." (1-0527)

"They have learned a lot about the current situation in environmental control." (1-0651)

"Students learned about this industry. They should learn more; the industry is basic national security and economy." (1-0330)

"Industry has the opportunity to do the greatest amount of improvement most quickly." (1-1228)

"Place of industry in our environment." (1-0569)

"Problems of waste disposal." (1-0212)

"The active role of industry in prevention of ecological problems." (1-0844)

"Unfortunately little." (1-0933)

"Material was advanced for Junior High students, but did give students an overview and reference materials for industrial attitudes toward ecology." (1-0223)

"True facts about iron and steel." (1-0794)

"Very little - much too difficult reading for most of my students." (1-0134)

"With effort industry can control pollution." (1-1265)

"This material arrived too late to be used fully the first semester but will be used in greater depth the last part of second semester." (1-1170)

"Much deeper understanding of environmental problems." (1-1313)

"Pollution of land, water, and air are serious problems facing America today, but industry has begun to attack the problem." (1-0776)

"Causes - possible solutions - present programs - all constructive - got the students thinking." (1-0811)

"I thing that the students gained knowledge as to the importance of cleaning up and protecting our environment as well as what is being done in this area." (1-1223)

"That industry shares the responsibility for the environment." (1-1352)

"Stopping pollution is expensive, complicated and difficult." (1-0299)

"Relation of industry to environment." (1-1361)

"About pollution generally." (1-0227)

"Pollution has many causes. Some solutions for individuals were offered." (1-0215)

"That industry is trying to solve both their problems and others in the field of pollution." (1-0087)

"A brief, but comprehensive overview of problems affecting the environment. Information focusing on solutions to the problems was very worthwhile." (1-1125)

"Concern of industry for some of the problems it has created." (1-0055)

"This course will begin March 23 but it is expected that they will learn the immediacy of the problem and the need for their involvement in pollution." (1-0797)

"My students were more responsive to what kind of environment we should have and what we should do about it." (1-1215)

"Nut shell facts on relationship of environment and industry. History." (1-1049)

"It gave them a better insite on the importance and need of the industry." (1-1005)

"Minimal awareness of the industrial complex." (1-1098)

"Who is to blame for pollution. What industry can do to improve the environment and what individuals can do to improve the environment." (1-0789)

"I felt they learned something about how important our resources are and what we can do to preserve it." (1-0946)

"Basic information about industry." (1-1289)

"More about changes that are being made by industry to help the environment." (1-1326)

Written comments received in response to the question, "Have you any suggestions for improvement?"

"Need audio-visual aids." (1-0084)

"Lower reading level to fit needs of less capable students." (1-0864)

"Too much information in too little space. I have remedial reading students, language and concepts too adult. They voluntarily read the comic book." (1-0510)

"Less text, more art work." (1-0196)

"Divide into three separate units." (1-0335)

"One per student - I have 120 students - one copy on bulletin board is not sufficient." (1-0163)

"Films to accompany." (1-0844)

"More visual aids." (1-0395)

"Lower terminology to lower grade level understanding." (1-0939)

"For lower ability students - a simpler text." (1-0172)

"The 'one-leaf-book' could be improved by making it into a book, where you need not unfold the poster." (1-0188)

"For my level - smaller size and larger print." (1-0480)

"I like to use materials that present a fair picture - pros and cons so students can make reasonable decisions - or at least try." (1-0874)

"Better and clearer format." (1-1341)

"The printing may be in larger letters with more illustrations included." (1-0651)

"Booklet form - many more expanded areas of detail - manufacturing, economics, etc." (1-0330)

"Too many words." (1-1228)

"Less small writing on posters." (1-0897)

"I used it for bulletin board use - print on both sides was little difficult to display - other than that it was fine." (1-0212)

"More illustrations, i.e., movies, charts, etc." (1-0844)

"I would like film on what capital expenditures of pollution control has been." (1-0933)

"Good format." (1-0223)

"None except more films and materials." (1-0794)

"Make a more watered down version, also." (1-0134)

"More bulletin board material." (1-1313)

"Enclose set of photograhs showing before and after scenes." (1-0776)

"I would like to be able to have 35 copies to keep as a text for my class. It is most difficult to work from a single sheet." (1-0811)

"Use standard size pages rather than poster form." (1-1352)

"Could the reading level be lowered for better use in middle school grades? One issue for high school and one for grades." (1-0299)

"Yes, nothing printed on back except for teacher's notes." (1-1361)

"Change format - too compact - booklet type. Better pictures could be used if a booklet." (1-0227)

"Projects (community oriented in nature) could be suggested in the 'what you can do' section." (1-1125)

"Development of filmstrip and tape cassette from this material." (1-0055)

"Publish kits of enlarged pictures from brochure (8 x 12) for display purposes. Sponsor summer grant programs for teachers." (1-0797)

"Something along the same line for lower (3-4-5-) grades." (1-0999)

"Make these into three separate posters (land, water, and air) or a booklet. Revise the language to appeal to schools." (1-0165)

"Instead of so much information on one sheet, could the different areas be put on a few individual sheets." (1-1343)

"The use of brighter colors would help attract attention." (1-0209)

"Would like large pictures for bulletin board." (1-0160)

"A low readability level for students on primary and intermediate levels." (1-1053)

"More pictures, simpler reading." (1-0010)

"Leave some questions or problems that will make it locally." (1-0859)

"This type of material could be more usable in a pamphlet form. If designed for display, a more colorful and attractive design could have been used." (1-1339)

"No, I think it accomplishes the aim it was consturcted for, but references could be included or sources of information used." (1-0662)

"This material was difficult for some of the slower students. The reading level could be lowered to accommodate these students." (1-0443)

"Use recycled paper." (1-0548)

"Yes! Expand it and make it more comprehensive." (1-0784)

"The daily newspapers reflect a different story. Who is correct? Isn't your material wishful thinking." (1-0733)

"Perhaps if the sheet was cut and arranged in book fashion it would be easier to handle."

"Continue the information into subdivision of the same topics." (1-0926)

"Perhaps separate pages for land, air, and water." (1-1076)

"A generalized sample of materials produced and in what state, and the different usages of each." (1-0670)

"Make one display for bulletin board use, including a few good pictures with large captions; and make a booklet which corresponds to the display, including the information which is in the 'one-leaf-book'." (1-0388)

"Make the illustrations larger." (1-0202)

"More colorful." (1-0955)

"Sound filmstrip on subject would help." (1-0274)

"More specific information on basics of air, land, and water pollution." (1-1235)

"Too small of printing." (1-0314)

"None - very well prepared." (1-0974)

"Use written materials to supplement classroom display on bulletin board, etc." (1-0137)

"An easier-to-read version of this leaflet would appeal to more students." (1-0432)

"Steel companies sure make it seem that they are doing an outstanding job to clean up the mess they created. I feel they should be more open and tell of some of the bad points." (1-0415)

"Foremat is extremely poor, revise. Do not, however, dilute substantative information." (1-0369)

"More pictures for primary grades." (1-0367)

"Lower reading level; less words; more photos; booklet form; activities included - pre- and post-tests." (1-0348)

"Paperback style, not folder." (1-0305)

"More of the same type, possibly adapt to transparency use." (1-0269)

"No. It was quite accurate and comprehensive." (1-0265)

"Could include a lesson plan with suggestions on how to present the material. Orient as a laboratory experiement." (1-0046)

"Include charts." (1-0035)

Written comments received in response to "Use this space for any general comments you may have about this piece of material."

"Keep publishing and revising with the signs of the times concerning these matters." (1-0864)

"Information would be of more general use if it were geared to eighth grade level in both reading and concepts presented." (1-0510)

"Effectiveness of this piece of material is, to a certain extent, limited by too great a mass of matter being presented at once. Larger type-face should be used, and the matter placed on several sheets, rather than one." (1-0196)

"This is too much in one paper, it could be divided into booklet format." (1-0335)

"Too difficult to read at Junior High level." (1-0217)

"Thank you for producing it." (1-0353)

"Have the material available for all students individually." (1-0155)

"I really enjoyed getting it - thank you!" (1-0605)

"Too much written; too small of print - But good! There is much student interest in environment." (1-0395)

"As always, I appreciate extra materials. I am an English teacher and am always looking for interesting, well-organized and well-illustrated material to make leaning more relevant to my students everyday lives." (1-1241)

"Perhaps some games on these areas for children to play? Reward bonus of environmental 'passwords'." (1-1343)

"Too much in too small a space. Spread out." (1-0066)

"On the same paper give both the industrial point of view and the conservationalist point of view." (1-0160)

"Very colorful and this attracted attention." (1-0417)

"This is well written and good from an information standpoint, and the steel industry doesn't brag too much about its great accomplishments!" (1-0017)

"Excellent bit of information that helps to develop a better understanding of the pollution problems." (1-1053)

"Very colorful. Problems may be overstressed, students are extremely conscious of say smoke pollution, etc. but pay no attention to sound pollution." (1-0859)

"This material was not too useful for me because it combined too much material on a single page that made it difficult to use either as a pamphlet or a bulletin board display. The text was also too advanced for my 9th grade students." (1-1339)

"This booklet was used by students from an American Democracy class. They were doing reports on pollution. The information was pertinent and concise as well as being presented in an appealing format." (1-0469)

"I find material of this kind very valuable and have requested class quantities of same."

"I find this material and other of your publications very valuable." (1-0784)

"The beautiful color pictures used to attract students and encourage them to investigate reading material, I thought it to be a most entertaining way of teaching." (1-0756)

"Students enjoyed comic book style and were knowledgeable as our Social Studies unit dealt with problems in an Industrial Society." (1-0733)

"I would appreciate receiving another evaluation like this at the beginning of April. It looks like a good criteria for judging my ecology unit and this related source." (1-0870)

"Very good!" (1-1130)

"A fine piece of material." (1-1076)

"Very useful. Need more industry involvement with school." (1-1232)

"Good for a brief, summary of the locations of iron and steel facilities in the U.S." (1-0670)

"The material is good, but it does not lend itself to large group presentations. Really, only one student at a time can use it. The cover, with the ecology flag is 'catchy'. This would be very good in individualized instruction." (1-0388)

"I feel it is very informative but for the type of kids and the level it was used it was satisfactory, better for junior high level." (1-0546)

"Make this material available to all intermediate grades." (1-0202)

"More of this general type of material would be useful." (1-0225)

"Presentation of material was good, yet reading level too difficult for many. Picture illustrations are good, colorful. Generally, a good supplement to an ecology unit." (1-1235)

"Form of presentation (alot of information on one side when unfolded, is unusual but some students are put off by seeing so much to read)." (1-0137)

"This is a good source of information on the ecology issues we face today. I used it as supplementary material and as a bulletin board display. Its use was quite effective, especially with the more 'able' students." (1-0432)

"I wish I had the number of copies I asked for." (1-0284)

"I like the short, concise way you show relationships between pollution and land, air and water. I can see a better discussion with this pamphlet with upper grades higher than sixth. Only my better readers could understand the reading material." (1-0272)

"If it was only printed on one side it would be more suitable for bulletin board use." (1-0276)

"Thank you for your help and concern." (1-0072)

"I believe the material is well prepared and presented." (1-0046)

"Interesting and informative - much needed in schools today." (1-0480)

"I liked it and even passed it along to another science teacher to use." (1-0614)

"Make public aware accurately of your problems. They're not stupid! Involve citizens of all ages in industry sponsored ecology projects." (1-527)

"I feel that the material was very interesting, and if I teach in the near future I would probably fit it in if possible." (1-1093)

"I appreciate your sending it." (1-0569)

"I will be using this material in April. Grade level 6. For this reason, I cannot respond to the above questions. Reading level appears to be above sixth grade level and may cause some problems." (1-0409)

"Well done - interesting to students. Let's have more!" (1-0874)

"We need more than one copy." (1-1341)

"I am looking forward to using future materials. I would use a filmstrip with a record, if this information is available as such. Audio-visual materials reach a little more than printed ones only. If you have 16mm films that could be borrowed without charge, I would appreciate it." (1-0651)

"Schools are so short of funds that resource materials, especially films, are needed and appreciated." (1-1228)

"Appreciate the American Iron and Steel Institute for making an effort to help pollution problems." (1-0212)

"Very effective in making my project successful." (1-0794)

"Some sections are unrealistic. Industry is still the major pollutor." (1-1265)

"I appreciate very much the bulletin board material." (1-1313)

"Excellent source of material on pollution." (1-0776)

"I think the material is excellent for my students. It provided them with an easy means of understanding what is being done to save our environment." (1-1223)

"Thank you for this material." (1-1352)

"Students should be given only most important facts. Pictures too small." (1-1361)

"Too commercial in places." (1-0227)

"Individuals, society, business, etc. all know that there's a pollution problem. I guess all of us want others to stop their pollution - we fight others who try to stop our pollution." (1-0215)

"Material good basic knowledge. Does good job stating the problem and showing possible pollutions. Led to many good discussions." (1-0087)

"Recently the Aluminum Industry and the Soap and Detergent Industry developed the aforementioned AV materials as part of their education program. Since these were free (one to a school), the message reached a lot of school children." (1-0055)

"I could not use all the material you sent so I have given some of it to other classes within the department. None was wasted. A small unit was developed including vocabulary, etc." (1-0168)

"Copies of this material would have been used by the class if we did receive it. At a glance the one copy received looks to be very informative. I am working with 42 Junior-High students." (1-0476)

"I can only commend you for making such a learning tool available. The colors are much attractive and the illustrations imaginative, attractive, colorful, and thought provoking. Thank you so much." (1-0797)

"It is an excellent piece of material to use along with discussion of environment and the Protection Agency." (1-1215)

APPENDIX B

"Mark Steel Fights Pollution"

Written comments received in response to the question "Please tell us in your own words what you believe your students learned from this piece of material?"

"Industry almost non-existent in our area. They learned what their northern relatives were speaking about, it fit into the water pollution and air pollution units - our town is growing both in amount of cars and tall buildings." (2-0040)

"Showed how industry tries to influence public opinion." (2-0419)

"How some steel industries are fighting pollution and the process they are using." (2-1200)

"Seriousness of pollution." (2-0387)

"A brief look into the field of ecology." (2-0643)

"Hopefully the students learned that there are some industries actively involved in combatting pollution." (2-0143)

"Information concerning thermal pollution, recycling, and pollution processes, steel making processes." (2-1375)

"It was just used as supplementary materials." (2-0994)

"They were able to see a inside view how steel is made and how pollution affects human beings in general of streams and air, etc." (2-1389)

"Pollution terms - good concepts due to good diagrams and illustrations." (2-0003)

"A general awareness." (2-0685)

"Additional and most informative." (2-1425)

"Future projection; pollution effects everyone and costs." (2-0428)

"Basically, how steel is made." (2-1412)

"The importance about our pollution and how we can solve it." (2-0021)

"They learned what industry is trying to do to help fight pollution." (2-0923)

"Important terms - important facts about pollution; steel facts." (2-1062)

"Realize industry is trying to help our pollution problems." (2-0238)

"The steel industry is trying not to pollute the environment." (2-1334)

"There is hope that more industries adopt the methods discussed in the booklet to fight pollution." (2-1239)

"They learned the operation of a steel mill and about one industry's concern for the environment." (2-0550)

"Interest in industry's role in ecology." (2-0965)

"Contained an enriching vocabulary." (2-0132)

"How steel plants fight pollution." (2-0575)

"Unable to determine, since reading level high for my students (age 14-18; reading level 2, 3, 4, etc. grade)." (2-1381)

"Other than being entertained - not much. Junior high can't be fooled this easily." (2-1188)

"Industry is attempting to curb pollution. Specific methods of pollution control reinforced." (2-0511)

"A good understanding of the iron and steel industry." (2-0407)

"That if time is spent to regulate the steel business, it could conform with federal standards." (2-0570)

"How industry can fight pollution." (2-1444)

"The students used the material in preparation of panel discussions, it provided a base from which they could continue their research." (2-1002)

"Better idea of what U. S. Steel is doing to fight pollution. Increased awareness of anti-pollution services." (2-0734)

"Pollution is a problem with which steel companies are attempting to cope." (2-1206)

"Products, importance, etc. of steel." (2-0375)

"Discussed process of making steel and delima industry finds itself in; anti-pollution control versus $." (2-0506)

"How pollution is controlled in steel production." (2-0901)

"Additional ways to fight pollution." (2-0098)

"They learned about the process of making steel from iron ore as well as what the steel companies should do to keep the surrounding bodies of water free from pollution." (2-0063)

"Industry will pay for public 'blinders'." (2-0156)

"Steel is big business. Takes money to cut down pollution." (2-0161)

"More about ecology." (2-0171)

"Good overall view of the ecological part steel plays in our environment." (2-0179)

"Very good. Students of this age bracket like to read this comic-type material." (2-0193)

"They learned the importance of environmental quality and that large industry is also interested in fighting pollution for its benefit and also the public's benefit." (2-0278)

"Information on the steel industry and on how it seeks to fight pollution, i.e. - 'industry isn't always bad'." (2-0618)

"They learned the basics of steel production and some of the ways that the steel industry is fighting pollution." (2-0639)

"Steel making process; pollution problems." (2-0650)

"They like the idea of reading a funny book type of booklet. Use of glossary on back and general information." (2-0755)

"Industry's role in the environmental crisis." (2-1369)

"Awareness of what industry is trying to do to fight pollution." (2-0856)

"They learned where fuels and natural resources had their beginning. Also, how various methods are used in taking care of pollution." (2-0777)

"Their interest was quickly turned off - they had expected a 'comic book' to be funny. Educational benefit of comic style is very low when used for instruction." (2-0790)

"What job industry faces in curbing pollution problems." (2-0792)

"This served as enrichment for some and basic knowledge for others in the field of steel processing. There is, to my knowledge, little in our territory to introduce our kids to the importance and dynamics of the steel industry." (2-0814)

"Basic facts on steel production and environmental controls being attempted." (2-0858)

"An awareness of the pollution problem." (2-0861)

"That we as a nation are becoming concerned about pollution and are trying to do something about it." (2-0888)

"Most students are poor readers so the pictures help tell them the story. Most of them will work in industry along with college trained people." (2-0898)

"How the steel industry is protecting our environment." (2-0938)

"How costly it is to get anti-pollution plants. The need for anti-pollution plants." (2-1029)

"Environmental terminology." (2-1124)

"Steel's role in relation to pollution." (2-1126)

"They got some insight into what one industry is doing as far as pollution is concerned. It promoted their curiosity to try and find out what other industries are doing." (2-1156)

"They learned much of the steel industry's concern for environmental quality." (2-1169)

"Interrelationship of problems." (2-1351)

"Reviewed problems faced in controlling environment." (2-1218)

"The efforts being made by industry to reduce or eliminate pollution." (2-1278)

"I only used it as teacher reference material." (2-1026)

"Ways to remove pollutants from gas discharges - instead of just expelling them into the air." (2-1260)

"Awareness of industry and environment. The dependency of both on each other." (2-0028)

"The importance of steel and steel industry in combating pollution." (2-0745)

"Some industries are concerned with pollution." (2-0604)

"They liked the comic book materials, not as formal as a text or reference materials and tend to want to read this type." (2-1276)

"A basic concept of our technological revolution today." (2-0426)

"It helped them to realize that the entire country plays a major role in some way. They also found it valuable in making a product map of various states. It was correlated with Social Studies." (2-0159)

"They learned about the many different things that we use made of steel - liked comics." (2-1237)

"Another aspect of the environmental problem and solution." (2-1064)

"New point of view." (2-0336)

"Cannot be determined - was put on resource shelf - students read it for their own benefit." (2-0435)

"The complexity of the manufacture of steel; manufacturers are also concerned about our environment." (2-0925)

"They learned how steel is made, including the ingredients and the implications toward our environment." (2-0613)

"What industry is doing to over come pollution problems." (2-0786)

"Basic principles of a blast furnace." (2-1086)

"From my own experience, visual aids are a big help to deaf children." (2-0216)

"The process of making steel and its varied uses." (2-0700)

"How to begin to fight pollution - how this is accomplished. They were amazed at what is being done. Keep up the good work." (2-1356)

"The importance of fighting pollution in today's world." (2-0102)

"Appreciation and basic understanding of the steel industry and relationship between industrial services to society." (2-1304)

"About steel and people." (2-0138)

"How steel was made." (2-0201)

"Role of industry in preventing pollution; methods of research used; steel-making process; possible to have industry plus a clean environment; and industry does do its part in preventing pollution." (2-0045)

"Reviews what they knew about iron and steel making; fits 'pollution' into the picture, if they didn't know about steel manufacturing, it presents it well." (2-1011)

"I used it for reading, (my 'not interested' readers) we all learned about pollution and ways to combat it; and the uses of steel." (2-0885)

"It was far too technical, dull and advanced in reading level for my EMR boys." (2-0381)

"Exactly how pollution was being halted by one of the major industries of the world." (2-1117)

"We discussed pollution and the class realized that industry was bearing the cost. They also learned much about the iron and steel industry." (2-1244)

"Technicalities of pollution problems were learned well from this material. Format appeals to the low reading level student." (2-1112)

"Learned importance of iron and steel to country." (2-1347)

"The two booklets were very informative. Our speech topic is ecology and these booklets gave us several ideas about various areas of ecology. For 7th and 8th graders they were easy to read and beneficial to the teacher who used them." (2-0691)

"A working knowledge of how our iron and steel and fuel resources are converted to useable materials." (2-0235)

"What can be done to fight industrial pollution." (2-0124)

"They learned the use and processing of steel and iron. Heretofore, they were unaware of the processing process of the steel used all about them." (2-0036)

"That industries are concerned with ecology." (2-0759)

"Importance of steel and iron in enriching the living standards." (2-1016)

"The listing of vocabulary terms was an effective learning device." (2-1084)

"I think it showed them that industry is really trying to aid in the fight against pollution. They learned much about the manufacturing of steel." (2-1244)

"Material helped in numerous ways to enrich students total awareness of importance of the iron and steel industry." (2-1034)

"They learned that all of the coal mines were not in Pennsylvania." (2-1023)

"The institute shows an interest in community welfare and improvements possible for the future." (2-0283)

"That the economic impact is very important to ecological control of the environment, and must be given due consideration by all individuals." (2-1422)

"I can't judge from one piece of literature in a class of 36 pupils - not enough material was available to judge." (2-0983)

"The steps that industry takes to police the environment." (2-0351)

"The steel industry became more real." (2-1298)

"Students seem very interested in experimenting in the interaction of the environment and their possessions made of iron and steel." (2-1323)

"That industry is attempting to clean up pollution caused by its own production." (2-1274)

"How steel industry is helping to fight pollution while at the same time bettering society by steel products and by-products." (2-0384)

"One industry's attempt at allieviating pollution; introduce process of iron and steel." (2-0324)

"Individualized learning and motivation into subject." (2-1059)

"The iron and steel industry has taken the initiative in the area of preventing pollution." (2-0579)

Written comments received in response to the question "Have you any suggestions for improvement?"

"Too much information in one small booklet." (2-0040)

"Reading level inconsistent with approach." (2-0419)

"Make this into a film (animated)." (2-1300)

"Maybe have two issues, of different reading levels." (2-0387)

"More depth would help." (2-1389)

"Tone down the magic and the heavy involved message slightly." (2-1412)

"Simplify vocabulary for younger children." (2-0238)

"No - except that I believe this paper is a propaganda booklet, since industry definitely is still polluting more than this booklet would indicate." (2-0550)

"No - good format." (2-0965)

"Develop material for higher level." (2-0575)

"Back to the drawing board!" (2-1188)

"I used this for 9th grade inner-city students - it was hard for them to read and understand." (2-0930)

"Game or puzzle." (2-0570)

"Suggest you only use this with upper grades." (2-0357)

"Too many big words for lower level students." (2-1444)

"Many students today are attracted by posters." (2-1002)

"Simpler reading level." (2-1206)

"Perhaps two such booklets instead of one." (2-1375)

"Follow-up with bulletins of a more technical level. Air particulants you control, what they are. How much recyling of water." (2-0096)

"Shorten the booklet. Provide activities for students to do when they complete reading the material - crossword puzzles etc." (2-0126)

"Make it more modern in approach, design, and vocabulary." (2-0171)

"Upgrade the comic book to reflect the vocabulary and attitudes of todays youth." (2-0179)

"If different issues of information were received weekly or every two weeks. Highlight different topics each time." (2-0271)

"Think this is fine material. Nice to have other areas written like this." (2-0755)

"This form of 'comic book' presentation is not as adaptive to classroom lesson as would true picture presentation." (2-0790)

"A larger sheet - seemed crowded on certain pages." (2-0792)

"For this phamphlet - no. However, I would like to see more industry sponsored movies made available on a low cost rental basis." (2-0814)

"An easier reading level." (2-0961)

"Too difficult for low readers at my grade level." (2-0891)

"If possible - fewer pages and more simplified diagrams - less verbosity." (2-1169)

"More copies." (2-1351)

"Send out a catalog or list of other available materials for teachers." (2-0102)

"I think it is very educational if used in the right context." (2-1304)

"Lower reading level for remedial class - could be very effective." (2-0138)

"None - good as it is." (2-1112)

"More illustrations and uses of types of steel." (2-1347)

"Easier language." (2-0235)

"Make your pamphlet visualy clearer, make the technical terms easier to understand, make it shorter - then publish a teacher's guide so that he may fill in what you have had to leave out, or separate your topics and publish more colorful, simpler, easier to understand pamphlets. Separate - making of steel, and ecology procedures. Use clearer sequencing of ideas." (2-0381)

"Bring it down to a lower reading level. Suggest fourth grade reading level." (2-0124)

"Perhaps more audio-visual oriented material, such as transparency sets, and cassette tapes with filmstrip." (2-0036)

"Enlarged charts of some of the diagrams and processes." (2-0759)

"I felt it was effective as it stands." (2-1084)

"Very satisfactory." (2-1034)

"Change colors of the material." (2-1023)

"Bring the content down to primary reading level to be used with Career Education Curriculum materials. Write accompanying teachers guide in behavioral expectation terms." (2-1422)

"Change the character - corny." (2-0351)

"Maybe leave some room on back page for kids to jot down notes." (2-0384)

"No mention is made of any of the ill effects in processing steel, depleting sources, etc." (2-0324)

"No improvement necessary." (2-0579)

"Too propagandistic and patronizing toward the student. Either make it more entertaining or more informational and straight forward." (2-0419)

"This is a fine gesture on your part to contribute such resource materials without cost to schools." (2-0517)

"Come out with more stories on more phases of pollution." (2-0387)

"If possible may I have 100 copies of 'Mark Steel Fights Pollution.' Also if possible 'Journey of Discovery with Mark Steel' - 100 copies for use in my classroom. Thank you for your consideration." (2-0143)

"A fine booklet." (2-1375)

"Our students read on a low level; so the vocabulary was rather difficult. They were definitely intrigued by the comic book appearance." (2-0474)

"Additional information should be added." (2-1389)

"It is good for industry to make such material to supplement the school texts - the 'comic' format is motivating, too!" (2-0003)

"The magic of Mark Steel and his car is a little overbearing to me, but probably normal for a Saturday morning cartoon addict." (2-1412)

"I just wish I had sent for classroom quantities instead of only a sample copy." (2-0912)

"I am a reading teacher in the Junior High and I felt that for the majority of my students, the reading level was too high for 7th grade. They would enjoy the pictures though. I do think its a good resource for myself." (2-1328)

"Presented in a way to hold the interest of the students." (2-1239)

"I use this information as an example of how an industry, with its concern for improving its public image, stretches or overlooks data to hood wink the public. I do, however, point out that the desire to improve is sincere, even though the results are not phenomenal. I also point out that a certain amount of pollution is inevitable if progress is to occur." (2-0550)

"They love the idea of comics in the classroom." (2-0965)

"Majority of students using it really enjoyed the material and its form of presentation." (2-0132)

"It would be better in another form than comics." (2-0575)

"Explanations by Jimmy like 'Hey man - great!' 'This is really cool!' etc. are a little too much. In my opinion this turns kids off." (2-0032)

"Thank you for any free material you ever provide for teachers." (2-1381)

"This material is over loaded and pro-biasis industry - anyone who drives past Gary knows Mark Steel isn't as pure as the steel industry wants him to be!" (2-1188)

"The paper was useful but my students found it to be too long and too hard to understand because of big words and technical terms." (2-1444)

"Well done. Nice, neat, easy reading form." (2-0734)

"Some terms too technical." (2-0375)

"Good to use as supplementary material because students enjoyed the idea of reading a comic book!" (2-0968)

"Has lots of good facts." (2-0901)

"I would like a classroom set of the booklet 'Mark Steel Fights Pollution' to use in my life Science classes. None of the teachers in my school have received a classroom set (30 copies)." (2-0083)

"I had too many students that had seen steel mills!" (2-0156)

"Found the material a useful teaching aid." (2-0161)

"The comic might make some headway in lower ability groups." (2-0271)

"It afforded my students a refreshing break from the hum-drum every day textbook routine." (2-0278)

"Excellent resource material for teachers and students." (2-1369)

"Excellent job - hopefully more of these will be forthcoming." (2-0792)

Written comments received in response to "Use this space for any general comments you may have about this piece of material."

"Perhaps splitting the topics and expanding more on each page would not give the hurried feeling. Very high interest for students." (2-0040)

"Somewhat disappointed - not really appropriate for my classes of less capable students. Larger print, more clear forward outlining of facts would greatly enhance your publication." (2-0790)

"My students would have gotten much more from the books had they been easier to read. All the students are on different reading levels so it was quite hard to judge the value of the magazines. Thank you for the materials - any free materials you have are greatly appreciated." (2-0861)

"Wish I could of had 36 copies instead of one." (2-0888)

"This helps them know about what is going on. They can understand but cannot read well enough to have jobs requiring reading. Good and useful citizens are our goals for these students." (2-0898)

"I think the booklet was well accepted and informative." (2-1218)

"I appreciate the availability of such material, however I was disappointed that I did not receive the quantity I desired. This again was the reasons for my lack of response to the first questionnaire." (2-0470)

"Material used in Ecology - mini-course - general overview." (2-1316)

"The booklet was presented in an excellent manner 'comic book style.' The students accepted it very well. I would have liked to have had a whole set, but maybe this could be done in the future." (2-1356)

"Very useful material and well appreciated." (2-0102)

"I liked the comic book format. I teach reading English, and they respond to this type of reading materials." (2-0201)

"Students were delighted with this piece of material. They were able to learn many important ideas from this booklet." (2-0045)

"Worthwhile. It is geared for younger than high school acceptability but the factual material is O.K. for my high school groups. High school students do not like to be associated with junior highers." (2-1011)

"Terrific!" (2-0885)

"Generally good. Captures their attention by being on comic book idea." (2-1117)

"We appreciate the materials provided by American Iron and Steel Institute. They help us enrich our program. Kids will read books like Mark Steel Fights Pollution when they wouldn't read a text or library book." (2-1244)

"Material fit well into a LAP (Learning Activity Package) presented to the students in the area of Ecology. Thank you for the materials. Well used." (2-1112)

"Would like to see more information distributed to school by industry." (2-1347)

"Good - a lot of enthusiasm on the Junior High School level. Used for source material for speech contest." (2-0691)

"Cartoon format is excellent. It causes an immediate positive reaction to the material inside. Thank you." (2-0235)

"I think, in all sincerity, it has a good place in any science oriented program of the junior high and senior high level. It is my opinion that the material is very enriching in any curriculum. Thank you kindly for the material! People like you keep education enriched!" (2-0036)

"Even though industry-slanted, there are learnings to be developed and attitudes to be sponsored in this booklet." (2-0759)

"Industry will eventually benefit from making this material more readily available - because these very children will replace us in our jobs, especially in the industrial field." (2-1016)

"The students gained much from this piece of material and in turn shared it with others during our unit on pollution." (2-1084)

"Material was requested for the Media Center for reference file, rather than classroom use." (2-0577)

"Industries help and support is appreciated." (2-1323)

"Appreciate material very much! We need outside help to improve the quality of education each child receives." (2-1034)

"The material was very valuable, very easy to read, and very concise." (2-1023)

"One piece for 128 students use; used as report. One reads it and 25 listen to a summary of information." (2-0283)

"Excellent and graphic material, coordinated well in environmental science awareness. Continue to supply student material each year." (2-1422)

"Very clever comic format which holds student interest and appeals to their reading tastes." (2-0983)

"By the time I had received the material, I had finished the unit in which it would have been used. I have placed it for future consideration." (2-0454)

"The idea is a good one, but the ideas and information expressed is complicated so you ought to use more pictures and divide up the productions you speak of into separate chapters or books." (2-0381)

"I think it evades the basic issues of pollution. Litter makes an excellent smoke screen. The main problem is the production of products that don't enhance life or the american way of life. As long as profit is the number one purpose for production, this will occur." (2-0500)

"I think your idea is fine. Here in the midwest 'Steel Industry' is very remote." (2-1298)

"Children enjoyed the comic book structure. Used in conjunction with a similar movie. Should not have mixed fact with fiction. Can be confusing." (2-1274)

"Comic book is excellent motivation at this age level - they are stimulated to read both words and pictures - learn in spite of themselves." (2-1059)

"Comic book format good to draw pupil interest." (2-0579)

APPENDIX B

"Steel Science and Our Society"

Written comments received in response to the question "Please tell us in your own words what you believe your students learned from this piece of material?"

"Gained an appreciation of a large industry. We didn't realize it was so complicated and complex." (3-1211)

"They were able to determine some of the work and problems of industry." (3-0058)

"That the steel industry is just not concerned with the production of steel but also concerned with scientific discoveries, economy, ecology, etc." (3-1036)

"The students learned the place of steel in our modern society." (3-1406)

"Being from a rural-agricultural community, these students are totally unfamiliar with the background of most industries and how they operate. This material provided that information." (3-1486)

"They became more aware of the steel industry and what is does for our nation." (3-1433)

"Basic steps in steel-making." (3-1519)

"An appreciation of the steel industry." (3-1622)

"The importance of steel in our country." (3-1246)

"The history, the process and importance of the steel industry." (3-0660)

"I am an industrial education instructor - this year students merely referred to this material - next year we hope to make a model of a steel plant and operations." (3-1586)

"They gained an insight into the story of resources in our society." (3-1176)

"Very general concepts of steel works." (3-1175)

"The mechanism of equipment used in the industry, the services that utilize the products, and the personnel involved." (3-1456)

"Most were interested in the material concerning ecology." (3-1580)

"Fine educational resource for tying in how steel production fits in and benefits society. On pretest-postest children showed 82% improvement in general content." (3-0118)

"I learned basic facts bout bridge building." (3-1540)

"This material was in a science file for the use of all students in my class. As a student teacher I did not have the opportunity to use it, however, I am sure many of the students looked at it." (3-0832)

"I used the material in my resource file. I have not yet had a chance to use it." (3-1600)

"They achieved a better understanding of the basic steel making process." (3-1152)

"Availability of important resource material for their teaching." (3-0914)

"They got a quick overview of what steel was doing for us and how the industry was involved in ecology." (3-1027)

"Something about steel production, uses, and hopefully something about ecology." (3-1042)

"They saw principles being taught." (3-0143)

"On a third grade level children are very interested in the mechanics of how things are done. I feel they enjoyed the steps involved with obtaining iron and steel." (3-1511)

"Material was used on an individual basis." (3-1093)

"Practical application of science to industry - introduction to outside area of individual interest and source of reports and paper." (3-0362)

"The impact of the steel industry on the economy." (3-1514)

"As noted, I have used this material thus far only for building up a resource file." (3-0395)

"Supplementary information in regard to science unit on Rocks and Minerals." (3-1574)

"I had one or two that used this with other library materials and had a report (oral) on it." (3-1266)

"The importance of steel in U.S. society, insight into the basic production of steel." (3-0670)

"I feel that the objectives listed in this material were fairly well fulfilled." (3-0959)

"Students had an opportunity to study the steel industry heretofore not available." (3-0978)

"It gave an understanding of steel and more about the influence of steel on their lives." (3-0988)

"With the help of a filmstrip on steel they learned the processes in steel making." (3-0315)

"What industry is doing in pollution control. Excellent cover photo page." (3-0390)

"Steel is an important product. Production of it is large scale and presents many problems." (3-0182)

"The students came to realize that the iron and steel industry is an important, large and complex industry in our country today." (3-0132)

"Steel production and its uses in our society." (3-1428)

"Needs and uses of steel; historical development of steel, and how it is made." (3-0581)

"How steel is made, and history of steel." (3-1520)

"I used as reference - I've loaned out material to third and fourth grades for bulletin board use and reference. I have a reference library in my classroom." (3-1545)

"Used as a coloful and interesting form of the story of iron and steel." (3-1427)

"To look for value in research; competition involved in industry; variety of jobs available; changes in types of jobs and working conditions." (3-1046)

"Very little due to high reading level." (3-0990)

"I believe they were interested in the fact that steel plays a very important part in our society today." (3-0831)

"They learned all about the processes that are involved with steel." (3-1585)

"I feel the children that used this material had very little knowledge of the use or background of steel. Florida has no large industry and the children had very little knowledge in this area." (3-1295)

"Very informative, interesting - clear and concise." (3-1238)

"Great value to vocational programs." (3-1626)

"They learned the importance of steel and some areas where steel is used that is affecting their lives." (3-1531)

"History, economics, growth of industry in U.S. and what technology has done for us." (3-1214)

"Used as individual research reports." (3-0448)

"They learned about the raw materials used in producing iron and steel; the methods and furnaces utilized in the production of both; and the various products manufactured." (3-1488)

"Good basic understanding of the production of steel." (3-0343)

"Basic processes." (3-1386)

"They learned to tell the difference between iron and steel- the role that the steel industry is playing ecology which our class has studied." (3-0633)

"Should have greater understanding of the importance of steel to our way of life." (3-1501)

"Early development of steel - uses in society - methods of production." (3-1487)

"Illustrations are especially delightful and catch the students interest." (3-1360)

"My students use this material to teach lower level students." (3-1037)

"How complex an industry is. The record was great!" (3-1024)

"Used as research material." (3-0998)

"I did not use this material. I have been teaching only a short time. I would suggest using the material with a simpler vocabulary as well." (3-1258)

"Understanding of the processing, use, and application of steel to their own lives." (3-1223)

"It was not able to be used as it is not material suitable for primary children - possibly more capable intermediates." (3-0856)

"Gained a general understanding of material, jobs, industry, and relation to economy." (3-1311)

"Concepts on the development of industry and, in turn, the consequences industry has had on our society." (3-1039)

"Class very curious and anxious to learn about steel. Found out what steel really was and the process of manufacturing." (3-1518)

"Our town is a steel-making area. Most students were extremely interested in learning the exact procedures used in the local plants to produce steel." (3-1108)

"I believe that students who used the material got a more precise and clear idea of how and why steel is an important industry, how steel has changed our lives, and the relationship with the environment." (3-1180)

"The basic steel making process." (3-0397)

"I feel that they got a little better understanding of industry and what this term involves." (3-0412)

"The difference between the furnaces and the processes involved." (3-1455)

"Through illustrations, learned the process of steelmaking." (3-1505)

"What efforts industry is making to improve a product and society." (3-1504)

"I believe this piece of material helped my students understand the basic steps in steelmaking." (3-0684)

"This material enriched our social studies classes." (3-0437)

"Processes of steel-making and contributions steel makes to our society." (3-0776)

"The faster learners used it for supplementary reading, and I believe it gave them valuable experience reading scientific language while seeing pictures of what they were reading about." (3-1496)

"The material has been used in non-directed learning." (3-1529)

"Good resource material for a new teacher." (3-1221)

"This is difficult to state since the children used the material in individualized situations, mostly as supplementary and reference material." (3-0083)

"I hope this was a reinforcement to the unit on Iron and Steel." (3-0062)

"Because of the photographs and descriptions the students were able to enrich our classroom lessons." (3-0587)

"The importance of steel in our modern society." (3-1294)

"Extra information on iron and steel industry, which is only briefly mentioned in our social studies text." (3-0952)

"They learned best what people and money lies behind and within the operation of a company." (3-0874)

"How steel is produced in our society. We then discussed waste and conservation.

"Really the science of steel - steel in our lives - making of steel, etc." (3-1034)

"The basic steps of steel-making." (3-1169)

"More about the steel-industry." (3-1506)

Written comments received in response to the question "Have you any suggestions for improvement?"

"Lower the reading level." (3-0990)

"I think more color pictures or illustrations would have made it more appealing to the elementary grade level." (3-0831)

"Rewrite the materials that you have for the primary level with low vocabulary yet high interest if you can." (3-1585)

"I thought it was excellent." (3-1295)

"Possibly a list of activites to employ for use in conjunction with the material." (3-1238)

"Little more visuals." (3-1626)

"Make it more general for primary grades." (3-1531)

"More ideas for activities; more ideas for simple construction, experiments, or projects." (3-1214)

"Illustrations could be full page." (3-0448)

"More detailed process drawings." (3-1386)

"I would like it to be simpler for use with third graders." (3-0633)

"A more simplified approach." (3-0838)

"Small size of type puts off many intermediate students. Looks more challenging than it is." (3-1501)

"Well arranged." (3-1487)

"For intermediate grade level it could be written in easier vocabulary." (3-1360)

"Make more materials like this available." (3-1037)

"If you could send a small piece of coal, iron ore, and limestone with each set. They are deeply concerned about mining coal and blast furnaces." (3-1024)

"Enlarge center pictorial section to full chart class size." (3-0998)

"My students range in reading ability from grade one to six. Many children are interested in things of this sort but it would be beyond their comprehension or understanding if read or studied on their own." (3-1258)

"Perhaps some suggested activities for pupil involvement." (3-1223)

"It is a good resource material - very interesting - if presented to the proper grade level." (3-0856)

"Could be revised to cover people in the industry and the jobs they do." (3-1311)

"Bring down reading level. With this the material can be used from elementary level through junior high. Children enjoy all flicks - individual frames excellent - but became frustrated by incomprehensibility of reading level." (3-1039)

"Larger print, more pictures." (3-1518)

"Larger print and a little simpler explanation." (3-1108)

"No, but it is meant for more capable children." (3-1180)

"Something on this line for the poor readers of 4th - 6th." (3-0397)

"I would like to see the reading level a little lower for slower students." (3-0412)

"How about a poster or some comprehension questions for follow-up?" (3-1455)

"Make the print larger. This turns some students off who would have otherwise utilized the pamphlet." (3-1505)

"Bring down reading level." (3-1504)

"Perhaps some of the material could be printed in larger type suitable for third grade." (3-0046)

"It would be most helpful to me and I think other special class teachers would agree, if you could produce another version of 'Steel Science and Our Society' on a lower readability level." (3-0684)

"A filmstrip to accompany Steel Science and Our Society." (3-0437)

"Lower reading level." (3-0076)

"The reading difficulty was really too high for my age group - fourth grade." (3-1496)

"Color is always more interesting. We know expense makes it prohibitive." (3-0083)

"More pictures between paragraphs." (3-0062)

"There could possibly be simulation games and exercise booklets." (3-0874)

"Maybe bigger print. My students do not read well and small print scares them!" (3-1042)

"Put drawings among reading - not altogether - so much print discourages students." (3-1506)

Written comments received in response to "Use this space for any general comments you may have about this piece of material."

"It would be more effective if I had one copy per student." (3-1027)

"It is pretty good." (3-1042)

"Very beneficial to lesson. Children love watching experiments and touching products." (3-0143)

"I feel your company sould be congratulated for the excellent materials you offer to the school-age children." (3-1511)

"The material was sincerely appreciated." (3-1093)

"I feel it is of real benefit to our students and supplements our library sources." (3-0362)

"The material was usable and informative." (3-1514)

"The material was informative and well illustrated. I hope to be able to incorporate it into my classroom teaching should I be able to locate a job." (3-0395)

"Nicely presented and greatly appreciated." (3-1574)

"The class this year is very 'slow' and even great materials are only somewhat effective." (3-1266)

"Good as supplementary material for all grade levels." (3-0670)

"I found it to be an excellent resource. The children were excited and interested in the subject." (3-0959)

"Very good." (3-0978)

"Type is small hard to read. This booklet used by itself is useless - but by showing filmstrips on steel-making it is very effective." (3-0315)

"Excellent. I am not only using this booklet for ecology study, but also will use it in our Social Studies unit on the Industrial Revolution." (3-0390)

"Need more literature of this nature." (3-1427)

"Material was basic and applied well to my science course." (3-0182)

"I used this material for fourth grade social studies to supplement material in the textbooks. My use of the material was limited by the students limited reading ability but I had no criticism of the material itself." (3-0132)

"A good piece for information on how industry is doing its part to clean-up the environment." (3-1428)

"I think through the use of this material the student is exposed to a greater amount of knowledge, not found in the textbook. Materials from industry makes the students world more a reality." (3-0581)

"This gives a good short summary of steel and its importance." (3-1520)

"For kindergarten and primary grades it would help if booklet could be made up extremely simplified. Having samples so they can be shown - maybe even felt, would be very effective." (3-1545)

"Appreciate the suggested activities given." (3-1046)

"It was good resource material for me, and I found it interesting but a bit too much industry oriented." (3-0633)

"I believe the material was a bit too difficult for the primary grades. Much would have to be adapted." (3-0838)

"Center spread on BOF process most valuable." (3-1501)

"Could include very simple - student oriented lab experiences." (3-1487)

"Your material is much appreciated. We can't expect to reach every one of our pupils with these additional materials but hope that a few will be benefited." (3-1360)

"I deeply appreciate the service supplied." (3-1037)

"I have a low income area students. They were highly motivated by receiving so much 'free' material concerning steel." (3-1024)

"Ecology section has been used for environmental class, no feedback available from student teachers." (3-0998)

"Somewhat lengthy." (3-1223)

"Really appreciate this type of material. Very useful. Encourage companies to produce more." (3-1311)

"Thank you very much for the films. It was really appreciated." (3-1039)

"Your contribution to education is valuable!" (3-1518)

"Your illustrations are great!" (3-1108)

"Good diagrams; interesting text - historically and today; relates how steel serves our country and its concern for the future." (3-1180)

"Terrific illustrations and descriptions of open hearth and electric furnaces." (3-0397)

"The vocabulary is difficult for certain groups of the elementary level." (3-0412)

"Very good; a great deal of help in my teaching unit." (3-1455)

"This type of material surely helps our resource file for the varied needs of the students." (3-1505)

"Thanks." (3-1504)

"The boys in my class enjoy science. I found this material very helpful for my own reference and the boys enjoyed copying the diagrams and making scrapbooks from designs in this booklet, even though the reading was beyond their comprehension." (3-0684)

"I would like a catalog of free teaching aids." (3-0437)

"Excellent illustrations." (3-0776)

"This was the nicest material I have received from any organization. Its great that you provide this service and greater that you follow through in order to get feedback." (3-1496)

"Because I have this in the library, student use has been very broad - History, Science, geography. And I must include the entire stack of materials from the Iron and Steel Institute." (3-1529)

"Thank you for sending this material to me. It helped me greatly." (3-1221)

"The material is good supplementary material. Some of it is geared more to the junior high level. The majority of our participating students found it useful and interesting." (3-0083)

"I think it is helpful for me to have industry concerned about education. I like all the help I can get." (3-0062)

"This is useful, will be very useful when I am teaching." (3-0338)

"Fine leaflet - keep it up to date when applicable." (3-0843)

"I did not get a chance to use this material yet but I probably will get the opportunity next year. It seems to be practical and helpful." (3-1128)

"Thank you for the material. It provided a relaxing, informative break in the regular curriculum." (3-0188)

"I am student teaching and have not used the material yet but would if subject were discussed." (3-0715)

"It was difficult for me to answer this because I used it as material in a college classroom to show other future teachers what materials can be obtained. I'm sure though that this material would be useful in an elementary class and I plan to use it while teaching if possible." (3-0966)

"I enjoyed the material sent to me and the students had a better idea of the steel institute. Thank you for the trouble you took to send this helpful information to me. It is very helpful to receive visual aides for my class to use and relate to." (3-0034)

"It was much appreciated. Thanks." (3-1498)

"I liked the suggested activities that came with the piece. I hope to use the material next year with my students - it would work in very well with a unit on industry." (3-1513)

"Could be useful in teaching a unit - I hope I'll be able to use it next year or in the near future." (3-1186)

"This kind of information is very beneficial. We just need more of it." (3-0806)

"I teach grades 1 and 2 - this material is far older age group. I will use it for resource material. Will keep it in mind if I teach fourth grade. Thanks!" (3-0823)

"After graduation and I am teaching, this material should be quite valuable as I will be a librarian and the material will be used as resource material." (3-0218)

"Make the accompanying filmstrip a series of sound filmstrips." (3-0025)

"I felt the information was most useful in both the shop areas and the ecology programs." (3-0912)

"I used this material to build up a reference source in student teaching. I deeply appreciated the material." (3-1013)

"I feel that it would be good enrichment material. It offers several good suggestions for the teacher, also." (3-0599)

APPENDIX C

TABLE 17. PER CENT OF RESPONDENTS WHO INDICATED RECEIVING MATERIALS FROM THE A.I.S.I. CLASSIFIED BY ZIP CODE AREA (FIRST DIGIT)

Receipt	ZIP 0 %	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	Total f	%
Materials received	84	88	84	80	89	83	88	88	87	88	702	86
Not sure/rec'd.	5	3	9	6	4	9	7	3	5	5	45	6
Not received	7	8	5	14	4	8	4	7	8	5	53	6
No response	4	1	2	0	3	0	1	2	0	2	13	2
Total	100	100	100	100	100	100	100	100	100	100	813	100

TABLE 18. PER CENT OF TEACHERS WHO INDICATED USING MATERIALS - CLASSIFIED BY LEVEL OF USE & ZIP CODE

Level	ZIP 0 %	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	Total f	%
Primary	5	2	8	2	3	3	5	8	3	0	31	4
Intermediate	23	20	22	24	26	26	25	21	36	37	203	25
Junior High	40	39	25	28	35	39	38	33	36	20	281	35
Senior High	10	14	25	20	13	12	18	20	18	20	129	16
College	3	4	0	0	1	1	1	2	0	3	15	2
Vocational	1	0	0	0	1	1	0	0	0	0	3	-1
Did Not Use	5	7	6	6	9	1	5	6	0	5	47	6
Other	1	4	0	6	3	6	3	2	3	8	27	3
No Response	12	10	14	14	9	11	5	8	4	7	76	9
Totals	100	100	100	100	100	100	100	100	100	100	813	100

TABLE 19 PER CENT OF RESPONSES INDICATING PURPOSE FOR REQUESTING MATERIAL FROM A.I.S.I. CLASSIFIED BY FIRST DIGIT OF ZIP CODE

Purpose	ZIP	0 %	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	Total f	%
Looking for curr. mtl		59	46	48	52	54	57	58	49	49	60	434	53
Illustrative mtls.		19	12	14	16	15	5	13	15	15	8	109	13
Curious		13	10	8	8	15	8	13	5	23	17	96	12
Build resource file		33	30	26	34	33	17	31	39	44	22	247	30
Mtl's/capable stdts.		5	4	2	4	4	3	2	2	0	10	30	4
Mtl's/Less Capable		5	6	2	4	4	4	2	3	5	12	37	5
Mtl's/Entire Class		14	15	17	22	14	19	21	23	13	17	138	17
Other Reasons		9	4	2	6	5	1	1	11	5	7	41	5

No Totals: Multiple responses received

TABLE 20. PER CENT OF RESPONSES INDICATING USE MADE OF MATERIALS AFTER RECEIPT FROM A.I.S.I. CLASSIFIED BY FIRST DIGIT OF ZIP CODE

Use Made	ZIP 0 %	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	Total f	%
Supplementary Mtl.	47	37	48	38	38	39	49	30	46	50	340	42
Basic Material	8	7	13	4	10	8	6	5	8	7	63	8
Teacher Reference	15	20	8	22	26	13	19	23	26	13	154	19
Bulletin Board	23	16	8	14	13	19	23	13	23	17	137	17
Enr.Mtl's/Capable	3	3	2	2	5	1	5	0	5	7	28	3
Enr.Mtl's/Less Capbl.	4	2	2	4	2	3	3	3	3	3	23	3
Enr.Mtl's/Whole Cl.	24	16	11	26	11	13	17	25	8	15	133	16
Other	2	11	3	2	2	7	6	8	3	5	43	5

No Totals: Multiple responses received

TABLE 21. PER CENT OF RESPONSES INDICATING TEACHER ASSESSMENT OF EFFECTIVENESS OF MATERIALS - CLASSIFIED BY FIRST DIGIT OF ZIP CODE

Description	ZIP 0 %	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	Total f	%
Very Effective	12	13	16	18	14	19	13	13	18	12	115	14
Effective	45	39	47	46	44	51	48	48	44	42	365	45
Somewhat Effective	21	30	19	16	27	15	19	21	18	32	186	23
No Value	0	1	2	2	2	0	2	0	0	2	9	1
No Response	22	17	17	18	13	16	18	18	21	13	138	17
Totals	100	100	100	100	100	100	100	100	100	100	813	100

TABLE 22. PER CENT OF RESPONSES INDICATING TEACHER ASSESSMENT OF IMPORTANCE OF CONTENT OF MATERIALS - CLASSIFIED BY FIRST DIGIT OF ZIP CODE

Description of Content	ZIP	0 %	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	Total f	%
Very Important		8	8	11	14	19	13	11	7	5	7	82	10
Generally Important		46	40	36	62	39	43	46	48	44	37	350	43
Somewhat Important		26	32	30	8	32	28	22	23	31	38	227	28
Not At All Important		0	0	3	0	3	0	2	2	3	3	12	1
No Response		20	20	20	16	16	16	19	20	18	15	142	18
Totals		100	100	100	100	100	100	100	100	100	100	813	100

TABLE 23. PER CENT OF RESPONSES INDICATING TEACHER ASSESSMENT OF FACT THAT MATERIALS WERE INDUSTRY SPONSORED - CLASSIFIED BY FIRST DIGIT OF ZIP CODE

Description	ZIP 0 %	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	Total f	%
Has No Effect	51	43	37	44	43	44	40	41	49	35	348	43
Is unobtrusive	10	11	19	14	22	16	24	13	13	23	136	16
Intrudes	2	5	2	2	6	7	7	5	5	9	41	5
Cannot Be Determined	19	24	23	24	20	18	16	28	15	20	170	21
No Response	18	17	19	16	9	15	13	13	18	12	118	15
Totals	100	100	100	100	100	100	100	100	100	100	813	100

TABLE 24. PER CENT OF RESPONSES INDICATING TIME SPENT IN CLASSROOM USE OF MATERIALS - CLASSIFIED BY FIRST DIGIT OF ZIP CODE

Time Range	ZIP 0 %	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	Total f	%
Less than 1 hour	17	26	12	16	27	19	24	33	21	30	188	23
1 - 2 hours	25	30	28	36	29	33	34	28	25	25	241	29
3 - 5 hours	13	7	16	6	8	17	10	6	5	8	79	10
More than 5 hours	3	3	3	2	4	3	2	2	5	2	24	3
Cannot Be Determined	19	13	22	20	17	13	11	15	23	25	136	17
No Response	23	21	19	20	15	15	19	16	21	10	145	18
Totals	100	100	100	100	100	100	100	100	100	100	813	100

TABLE 25. NUMBER AND PER CENT OF RESPONDENTS WHO INDICATED RECEIVING MATERIALS FROM A.I.S.I. - CLASSIFIED BY SIZE OF SCHOOL DISTRICT

Receipt	Rural		Suburban		Village		Town		City		No		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Materials Received	96	89	109	84	118	90	199	90	163	86	17	53	703	86
Not sure/received	4	4	13	10	7	5	12	4	6	3	3	10	45	5
Did Not Receive	8	7	8	6	5	4	11	5	18	11	2	6	53	7
No Response	0	-	0	-	1	1	1	1	0	-	10	31	12	2
Totals	108	100	130	100	131	100	223	100	189	100	32	100	813	100

TABLE 26. NUMBER AND PER CENT OF TEACHERS WHO INDICATED USING MATERIALS - CLASSIFIED BY SIZE OF SCHOOL DISTRICT

Level	Rural		Suburban		Village		Town		City		No		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Primary	6	6	8	6	4	3	8	4	4	2	1	3	31	4
Intermediate	26	24	34	26	25	19	67	30	46	24	4	13	203	25
Junior High	32	29	52	40	60	46	69	31	69	34	5	16	281	35
Senior High	24	22	16	12	23	18	33	15	32	17	1	3	129	16
College	1	1	2	2	1	1	5	2	3	1	3	9	15	2
Vocational	1	1	1	1	0	-	0	-	1	1	0	-	3	-1
Did Not Use	6	6	5	4	8	6	19	8	7	3	2	6	47	6
Other	2	2	3	2	2	2	9	4	9	5	2	6	27	3
No Response	10	9	9	7	7	5	13	6	23	13	14	44	76	9
Totals	108	100	130	100	131	100	223	100	189	100	32	100	813	100

TABLE 27. NUMBER AND PER CENT OF RESPONDENTS INDICATING PURPOSE FOR REQUESTING MATERIALS FROM A.I.S.I. - CLASSIFIED BY SIZE OF SCHOOL DISTRICT

Purpose	Rural		Suburban		Village		Town		City		No		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Looking/current mtl	68	62	83	64	68	51	114	51	94	50	7	22	434	53
Illustrative mtl	11	10	24	18	16	11	29	13	24	13	5	16	109	13
Curious	14	13	13	10	14	11	27	12	27	14	1	3	96	12
Build Res.File	37	34	35	26	37	28	74	33	48	25	16	50	247	30
Mtl's/Capable stdts.	6	6	2	2	4	3	6	3	12	6	0	-	30	4
Mtl's/Less Capable	6	6	5	4	6	4	12	5	8	4	0	-	37	5
Mtl's/Entire Class	13	12	24	18	24	18	41	18	32	17	4	13	138	17
Other Reasons	5	5	9	7	7	5	10	4	8	4	2	6	41	5

No Totals: Multiple Responses Received

TABLE 28. NUMBER AND PER CENT OF RESPONDENTS INDICATING USE MADE OF MATERIALS AFTER RECEIPT FROM A.I.S.I. - CLASSIFIED BY SIZE OF SCHOOL DISTRICT

Use Made	Rural		Suburban		Village		Town		City		No		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Supplementary Mtl.	42	39	67	52	57	44	86	39	80	42	8	25	340	42
Basic Material	10	9	7	5	12	9	17	8	17	9	0	-	63	8
Teacher Reference	28	26	34	26	20	15	41	18	22	12	9	28	154	19
Bulletin Board	32	30	26	20	21	16	52	23	35	19	5	16	171	21
Enr.Mtl's/Capable	21	19	29	22	14	10	43	19	29	15	1	3	137	17
Enr.Mtl's/Less Capb	4	4	4	3	2	2	5	2	13	7	0	-	28	3
Enr.Mtl's/Whl Cl	17	16	27	21	18	14	41	18	25	13	5	16	133	16
Other	2	2	5	4	13	10	11	5	9	5	3	9	43	5

No Totals: Multiple responses received

TABLE 29. NUMBER AND PER CENT OF RESPONSES INDICATING TEACHER ASSESSMENT OF EFFECTIVENESS OF MATERIALS - CLASSIFIED BY SIZE OF SCHOOL DISTRICT

Description	Rural		Suburban		Village		Town		City		No		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Very Effective	17	15	27	20	23	16	24	11	21	11	3	9	115	14
Effective	59	55	55	42	69	53	93	42	84	44	5	15	365	45
Somewhat Effective	19	18	32	25	21	17	66	29	45	24	3	10	186	23
No Value	0	-	1	1	2	2	2	1	4	3	0	-	9	1
No Response	13	12	15	12	16	12	38	17	35	18	21	66	138	17
Totals	108	100	130	100	131	100	223	100	189	100	32	100	813	100

TABLE 30. NUMBER AND PER CENT OF RESPONSES INDICATING TEACHER ASSESSMENT OF IMPORTANCE OF CONTENT OF MATERIALS - CLASSIFIED BY SIZE OF SCHOOL DISTRICT

Description of Content	Rural		Suburban		Village		Town		City		No		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Very Important	19	18	20	16	13	10	17	7	11	6	2	6	82	10
Generally Imp.	52	48	47	36	66	50	96	43	83	44	6	19	350	43
Somewhat Imp.	20	18	45	34	34	26	70	31	55	29	3	10	227	28
Not At All Imp.	3	3	1	1	1	1	2	1	5	3	0	-	12	1
No Response	14	13	17	13	17	13	38	18	35	18	21	65	142	18
Totals	108	100	130	100	131	100	223	100	189	100	32	100	813	100

TABLE 31. NUMBER AND PER CENT OF RESPONSES INDICATING TEACHER ASSESSMENT OF FACT THAT MATERIALS WERE INDUSTRY SPONSORED - CLASSIFIED BY SIZE OF SCHOOL DISTRICT

Description	Rural		Suburban		Village		Town		City		No		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Has No Effect	47	43	56	43	62	48	101	45	76	40	6	19	348	43
Is Unobtrusive	24	22	24	18	21	16	29	13	38	20	0	-	136	16
Intrudes	1	1	8	6	8	6	15	7	9	5	0	-	41	5
Cannot Be D'td.	23	21	29	23	24	18	50	22	37	19	7	22	170	21
No Response	13	13	13	10	16	12	28	13	29	16	19	59	118	15
Totals	108	100	130	100	131	100	223	100	189	100	32	100	813	100

TABLE 32. NUMBER AND PER CENT OF RESPONSES INDICATING TIME SPENT IN CLASSROOM USE OF MATERIALS - CLASSIFIED BY SIZE OF SCHOOL DISTRICT

	Rural		Suburban		Village		Town		City		No		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Less than 1 hour	19	18	28	21	27	21	59	26	52	28	3	9	188	23
1 - 2 hours	39	36	46	36	49	37	54	24	49	26	4	13	241	29
3 - 5 hours	10	9	12	9	17	12	18	8	22	12	0	-	79	10
More than 5 hours	3	3	8	6	3	2	2	1	8	4	0	-	24	3
Cannot be Det'rd.	23	21	20	16	17	13	46	21	27	14	3	9	136	17
No Response	14	13	16	12	18	15	44	20	31	16	22	69	145	18
Totals	108	100	130	100	131	100	223	100	189	100	32	100	813	100

TABLE 33. NUMBER AND PER CENT OF RESPONDENTS WHO INDICATED RECEIVING MATERIALS FROM A.I.S.I. - CLASSIFIED BY EDUCATIONAL BACKGROUND

	Educational Level													
	Less AB		AB		AB+		M Ed		M Ed+		Spec.		Doc't.	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Materials Received	36	88	149	88	276	88	86	87	138	87	11	85	3	60
Not sure/received	4	10	12	7	16	5	4	4	9	6	0	-	0	-
Did Not Receive	1	2	9	5	19	6	9	9	9	6	2	15	2	40
No Response	0	-	0	-	1	-1	0	-	2	1	0	-	0	-
Totals	41	100	170	100	312	100	99	100	158	100	13	100	5	100

TABLE 34. NUMBER AND PER CENT OF TEACHERS WHO INDICATED USING MATERIALS - CLASSIFIED BY EDUCATIONAL BACKGROUND

Level	Educational Level: Less AB		AB		AB+		M Ed		M Ed+		Spec.		Doc't.	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Primary	6	15	14	8	9	3	2	2	0	-	0	-	0	-
Intermediate	6	15	51	30	75	24	27	27	38	24	5	38	0	-
Junior High	10	24	52	30	128	41	29	30	58	36	3	23	0	-
Senior High	0	-	14	8	52	17	26	26	34	22	2	15	0	-
College	2	5	3	2	0	-	2	2	6	4	0	-	2	40
Vocational	0	-	1	1	0	-	0	-	1	1	1	8	0	0
Did Not Use	13	32	14	8	11	3	3	3	5	3	0	-	0	-
Other	1	2	6	4	13	4	1	1	4	3	1	8	1	20
No Response	3	7	15	9	23	8	9	9	12	7	1	8	2	40
Totals	41	100	170	100	312	100	99	100	158	100	13	100	5	100

TABLE 35. NUMBER AND PER CENT OF RESPONDENTS INDICATING PURPOSE FOR REQUESTING MATERIALS FROM A.I.S.I. - CLASSIFIED BY EDUCATIONAL BACKGROUND

	Educational Level													
	Less AB		AB		AB+		M Ed		M Ed+		Spec.		Doc't.	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Looking/current m'	8	20	83	49	183	59	49	49	99	63	7	54	3	60
Illustrative mtl.	2	5	28	16	37	12	19	19	19	12	3	23	0	-
Curious	1	2	20	12	43	14	7	7	24	15	1	8	0	-
Build Res.File	25	61	77	45	73	23	34	34	32	20	4	31	1	20
Mtl's/Capable st	0	-	5	3	9	3	8	8	6	4	2	15	0	-
Mtl's/Less Capbl	1	2	4	2	17	5	4	4	9	6	2	15	0	-
Mtl's/Entire Cl	7	17	22	13	63	20	18	18	25	16	2	15	0	-
Others	2	5	12	7	13	4	6	6	7	4	1	8	0	-

No Totals: Multiple responses received

TABLE 36. NUMBER AND PER CENT OF RESPONDENTS INDICATING USE MADE OF MATERIALS AFTER RECEIPT FROM A.I.S.I. - CLASSIFIED BY EDUCATIONAL BACKGROUND

	Educational Level													
	Less AB		AB		AB+		M Ed		M Ed+		Spec.		Doc't.	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Supplementary Mtl	8	20	70	41	134	43	43	43	77	49	5	38	1	20
Basic Material	4	10	13	8	23	7	7	7	11	7	4	31	1	20
Teacher Reference	15	37	39	23	47	15	19	19	31	20	2	15	1	20
Bulletin Board	3	7	29	17	72	23	29	29	33	21	5	38	0	-
Enr.Mtl's/Capable	4	10	25	15	64	21	11	11	30	19	2	15	0	-
Enr.Mtl's/Less Cpbl	1	2	5	3	9	3	8	8	5	3	0	-	0	-
Enr.Mtl's/Whl Cl	7	17	31	18	54	17	15	15	21	13	3	23	0	-
Other	7	17	10	6	14	4	5	5	7	4	0	-	0	-

No Totals: Multiple responses received

TABLE 37. NUMBER AND PER CENT OF RESPONSES INDICATING TEACHER ASSESSMENT OF EFFECTIVENESS OF MATERIALS - CLASSIFIED BY EDUCATIONAL BACKGROUND

	Educational Level													
	Less AB		AB		AB+		M Ed		M Ed+		Spec.		Doc't.	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Very Effective	4	10	22	12	41	12	20	19	26	17	1	8	1	20
Effective	10	24	79	47	155	50	43	44	70	44	6	46	2	40
Somewhat Effective	9	22	38	23	69	22	23	24	43	27	3	23	0	-
No Value	0	-	4	2	4	2	0	-	1	1	0	-	0	-
No Response	18	44	27	16	43	14	13	13	18	11	3	23	2	40
Totals	41	100	170	100	312	100	99	100	158	100	13	100	5	100

TABLE 38. NUMBER AND PER CENT OF RESPONSES INDICATING TEACHER ASSESSMENT OF IMPORTANCE OF CONTENT OF MATERIALS - CLASSIFIED BY EDUCATIONAL BACKGROUND

	Educational Level													
	Less AB		AB		AB+		M Ed		M Ed+		Spec.		Doc't.	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Very Important	3	7	14	8	25	8	17	17	20	13	2	15	1	20
Generally Imp.	11	27	72	43	151	48	42	43	55	41	6	47	1	20
Somewhat Imp.	9	22	48	28	92	29	25	25	50	31	2	15	1	20
Not At All Imp.	0	-	7	4	2	1	1	1	2	2	0	-	0	-
No Response	18	44	29	17	42	14	14	14	21	13	3	23	2	40
Totals	41	100	170	100	312	100	99	100	158	100	13	100	5	100

TABLE 39. NUMBER AND PER CENT OF RESPONSES INDICATING TEACHERS ASSESSMENT OF FACT THAT MATERIALS WERE INDUSTRY SPONSORED - CLASSIFIED BY EDUCATIONAL BACKGROUND

	Educational Level													
	Less AB		AB		AB+		M Ed		M Ed+		Spec.		Doc't.	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Has No Effect	17	41	82	48	126	40	44	45	75	47	3	23	1	20
Is Unobtrusive	2	5	18	11	61	19	22	22	28	18	4	31	0	-
Intrudes	1	2	7	4	15	5	3	3	14	9	0	-	1	20
Cannot Be Det'd.	13	32	42	25	69	22	17	17	25	16	2	15	1	20
No Response	8	20	21	12	41	14	13	13	16	10	4	31	2	40
Totals	41	100	170	100	312	100	99	100	158	100	13	100	5	100

TABLE 40. NUMBER AND PER CENT OF RESPONSES INDICATING TIME SPENT IN CLASSROOM USE OF MATERIALS - CLASSIFIED BY EDUCATIONAL BACKGROUND

	Educational Level													
	Less AB		AB		AB+		M Ed		M Ed+		Spec.		Doc't.	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Less than 1 hour	7	17	39	23	67	21	22	22	49	31	2	15	2	40
1 - 2 hours	8	20	45	26	105	34	34	35	43	27	3	23	1	20
3 - 5 hours	2	5	13	8	32	10	13	13	17	11	2	15	0	-
More than 5 hours	1	2	6	3	8	3	3	3	5	3	1	8	0	-
Cannot be Detr'd.	7	17	35	21	55	18	12	12	25	16	1	8	0	-
No Response	16	39	32	19	45	14	15	15	19	12	4	31	2	40
Totals	41	100	170	100	312	100	99	100	158	100	13	100	5	100